

104
NII COPYRIGHT PROTECTION ACT OF 1995
(PART 2)

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NII Copyright Protection Act of 199...

HEARINGS
BEFORE THE
SUBCOMMITTEE ON
COURTS AND INTELLECTUAL PROPERTY
OF THE
COMMITTEE ON THE JUDICIARY
HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTH CONGRESS

SECOND SESSION

ON

H.R. 2441

NII COPYRIGHT PROTECTION ACT OF 1995

FEBRUARY 7 AND 8, 1996

Serial No. 38



Printed for the use of the Committee on the Judiciary

PART P1

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CONTENTS

HEARINGS DATES

February 7, 1996	Page 1
February 8, 1996	153

TEXT OF BILL

H.R. 2441	5
-----------------	---

OPENING STATEMENT

Moorhead, Hon. Carlos J., a Representative in Congress from the State of California, and chairman, Subcommittee on Courts and Intellectual Property	1
---	---

WITNESSES

Black, Edward J., president, Computer & Communications Industry Association	62
Cook, William J., attorney, Willian, Brinks, Hofer, Gilson & Lione	277
Gashel, James, director, government affairs, National Federation of the Blind	203
Heaton, Stephen M., general counsel and secretary, CompuServe, Inc.	234
Holleyman, Robert, president, Business Software Alliance	55
Kelly, John, vice president, consumer services, Recording for the Blind	206
McDaniels, Garry L., president, Skills Bank Corp., on behalf of the Software Publishers Association	84
Munder, Barbara A., senior vice president, the McGraw-Hill Cos., Inc.	69
Murphy, Edward M., president and CEO, National Music Publishers' Association, Inc.	35
Ostfeld, David M., vice chairman, IEEE United States Activities Board, and vice chairman, IEEE-USA Intellectual Property Committee	91
Pings, Dr. Cornelius J., president, Association of American Universities	218
Preston, Frances W., president and CEO, Broadcast Music, Inc.	25
Purcell, Scott, president, HLC Internet, Inc.	273
Robinson, Richard, chairman, president, and CEO, Scholastic, Inc., on behalf of the Association of American Publishers	178
Shapiro, Gary L., chairman, Home Recording Rights Coalition, and president, Consumer Electronics Manufacturers Association	79
Simmons-Gill, Catherine, president, International Trademark Association, and general counsel, General Media International, Inc.	297
Simon, Jeanne Hurley, Chairperson, U.S. National Commission on Libraries and Information Science	152
Tinsley, Tuck, III, Ph.D., president, American Printing House for the Blind, Inc.	169
Valenti, Jack, president and CEO, Motion Picture Association of America, Inc.	21

LETTERS, STATEMENTS, ETC., SUBMITTED FOR THE HEARINGS

Black, Edward J., president, Computer & Communications Industry Association:	
Prepared statement	65
Submissions to Chairman Moorhead's questions	142
Cook, William J., attorney, Willian, Brinks, Hofer, Gilson & Lione: Prepared statement	281

IV

	Page
Heaton, Stephen M., general counsel and secretary, CompuServe, Inc.: Prepared statement	238
Holleyman, Robert, president, Business Software Alliance:	
Prepared statement	57
Submissions to Congressman Goodlatte's questions	103
McDaniels, Garry L., president, Skills Bank Corp., on behalf of the Software Publishers Association: Prepared statement	85
Moorhead, Hon. Carlos J., a Representative in Congress from the State of California, and chairman, Subcommittee on Courts and Intellectual Property: Requests for written testimony on H.R. 2441 from 43 entities	2
Munder, Barbara A., senior vice president, the McGraw-Hill Cos., Inc.:	
Prepared statement	71
Submissions to Chairman Moorhead's questions	144
Murphy, Edward M., president and CEO, National Music Publishers' Association, Inc.: Prepared statement	38
Ostfeld, David M., vice chairman, IEEE, United States Activities Board, and vice chairman, IEEE-USA Intellectual Property Committee:	
Prepared statement	93
Submissions to Chairman Moorhead's questions	149
Pings, Dr. Cornelius J., president, Association of American Universities: Prepared statement	221
Preston, Frances W., president and CEO, Broadcast Music, Inc.: Prepared statement	26
Robinson, Richard, chairman, president, and CEO, Scholastic, Inc., on behalf of the Association of American Publishers: Prepared statement	182
Shapiro, Gary L., chairman, Home Recording Rights Coalition, and president, Consumer Electronics Manufacturers Association:	
Prepared statement	81
Submissions to Chairman Moorhead's questions	146
Simmons-Gill, Catherine, president, International Trademark Association, and general counsel, General Media International, Inc.: Prepared statement	300
Simon, Jeanne Hurley, Chairperson, U.S. National Commission on Libraries and Information Science: Prepared statement	157
Tinsley, Tuck, III, Ph.D., president, American Printing House for the Blind, Inc.: Prepared statement	174
Valenti, Jack, president and CEO, Motion Picture Association of America, Inc.:	
Information concerning section 1201, title 17, H.R. 2441	51
Prepared statement	23

APPENDIX

Material submitted for the hearings	323
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NII COPYRIGHT PROTECTION ACT OF 1995

(Part 2)

WEDNESDAY, FEBRUARY 7, 1996

**HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COURTS AND
INTELLECTUAL PROPERTY,
COMMITTEE ON THE JUDICIARY,
*Washington, DC.***

The subcommittee met, pursuant to notice, at 1:58 p.m., in room 2237, Rayburn House Office Building, Hon. Carlos J. Moorhead (chairman of the subcommittee) presiding.

Present: Representatives Carlos J. Moorhead, F. James Sensenbrenner, Jr., Bob Goodlatte, Sonny Bono, Patricia Schroeder, and Rick Boucher.

Also present: Thomas E. Mooney, chief counsel; Jon Dudas, assistant counsel; Mitch Glazier, assistant counsel; Sheila Wood, secretary; Betty Wheeler, minority counsel; and Stephanie Peters, minority counsel.

OPENING STATEMENT OF CHAIRMAN MOORHEAD

Mr. MOORHEAD. The Subcommittee on Courts and Intellectual Property will come to order. Why are we here today? Because copyrights are a unique trade asset for this country. The Congress must take every reasonable step to protect them both here and abroad. In 1993, the copyright industries, which include movies, TV programs, home videos, books, music, sound recordings, and computer software, accounted for 3.7 percent of the U.S. gross domestic product. This means \$238.6 billion.

Between 1977 and 1993, employment in the U.S. copyright industries more than doubled to 3 million workers, which is 2.5 percent of the total U.S. work force. Between 1988 and 1993, U.S. copyright industry employment grew almost four times the annual rate of the whole economy, 2.6 percent versus 0.7 percent. The copyright industries contribute more to the U.S. economy and employ more workers than any single manufacturing sector, including aircraft, primary metals, textiles, apparel, or chemicals.

In 1993, the U.S. copyright industries achieved estimated foreign sales of \$45.8 billion. After automobiles and parts, the copyright industry is the second largest industry in exports.

We are at the beginning of a new frontier in the distribution and reproduction of copyrighted works and the means by which we will communicate globally. It is predicted that the information age, which is now just beginning, will be a revolutionary period equivalent

lent to the Industrial Revolution. I predict the use of the Internet and other information technologies will explode once copyrighted works are protected and secure encryption technology is allowed.

The development of works and technology to protect them needs to be encouraged and needs to be regulated as little as possible. The Internet clearly has the potential to change how we do things, and the industries and the countries that stay on the cutting edge of this new age of information and technology will lead the world into the 21st century and beyond. The Internet provides American creators with an exciting new method by which we can lead the world in innovation and consumer services. It has the potential of allowing intellectual property industries, from large companies to small startup businesses, to account for an even greater trade surplus and to employ even more Americans, contributing to a healthier economy.

That is why we are here today, to start in motion a process which will encourage creativity and the development of technology. Being at the starting line has some drawbacks. We do not yet know what technologies the marketplace will develop to protect our valuable intellectual property. We do not know who will be able to have actual knowledge of the existence of a copyrighted work on the Internet or control over its dissemination. And so we must cautiously wade into this pool, testing the waters by carefully changing our successful copyright system only as needed.

The bill before us today is the product of recommendations made by the Working Group on Intellectual Property Rights of the Administration's Information Infrastructure Task Force. The working group held a hearing in November 1993. They then drafted a so-called green paper and circulated it widely for comment, and subsequently held 4 additional days of hearings in Chicago, Washington, DC, and Los Angeles.

A final report was issued in September 1995, completing 2½ years of study and analysis of each of the major areas of intellectual property law. H.R. 2441 and its sister bill pending in the Senate, S. 1284, will represent the collective input of Congress, the administration and private industry to best protect copyrighted works on the Internet.

Without objection, I submit for the record a list of 43 associations, groups and government entities which have been asked to provide written testimony to supplement the hearing record, which will include the testimony provided on the first day of hearings on November 15, 1995, at a joint hearing with the Senate Judiciary Committee along with the statements and testimony of the 18 witnesses the subcommittee will hear today and tomorrow.

[The information follows:]

REQUESTS FOR WRITTEN TESTIMONY ON H.R. 2441

American Intellectual Property Law Association.
 BMG Entertainment.
 American Society of Composers Authors and Publishers.
 Walt Disney Corporation.
 Capital Cities/ABC, Inc.
 Intellectual Property Owners, Inc.
 Interactive Digital Software Association.
 Magazine Publishers of America.
 National Association of Broadcasters.

Societe des Auteurs et Compositeurs Dramatiques.
 Recording Industry Association of America.
 Time Warner.
 Viacom International.
 Association for Computing Machinery.
 American Library Association.
 Recording for the Blind & Dyslexic.
 Directors' Guild of America.
 American Committee for Interoperable Systems.
 Sun Microsystems, Inc.
 Digital Future Coalition.
 National Public Radio.
 Public Broadcasting Service.
 Cincom Systems, Inc.
 Electronic Data Systems.
 Author Services, Inc.
 America Online, Inc.
 Newsletter Publishers Association.
 Virtual Marketing.com.
 Copyright Clearance Center.
 American Bar Association.
 American Historical Association.
 Digimarc.
 National Federation of the Blind.
 Creative Incentive Coalition.
 Sprint.
 SESAC.
 Microsoft Corporation.
 National Consumers League.
 The National Humanities Alliance (NHA).
 Consumer Federation of America.
 Alliance for Public Technology.
 U.S. Trade Representative, Executive Office of the President.
 U.S. Customs Service, Department of the Treasury.

Mr. MOORHEAD. In order for the superhighway to develop and function effectively, it needs information and desired content. People will not put their work products on the Internet and give consumers desired services if they cannot protect them. Clarifying the copyright law can unleash the economic potential of the Internet and that is what I believe the bill before us does.

H.R. 2441 clarifies and updates the copyright law in three important respects: It codifies courts decisions clarifying that the right of public distribution of U.S. copyright law applies to digital transmissions on computers; two, it prohibits the importation, manufacture or distribution of a device designed to circumvent a technological process created to protect copyrighted materials, especially applicable to the digital environment; and three, it prohibits providing false information about or altering the identification of a copyright owner or the conditions for use of a copyrighted work.

There is concern over the reach of the provisions of the bill prohibiting so-called black boxes, which is intended only to allow a remedy for the purposeful act of making devices to allow free access to copyrighted works. Today's hearing will examine options for the tailoring and drafting of this provision to achieve only that purpose.

The pending legislation does not alter the copyright liability standard for online service providers. It makes no change in this regard. These continued hearings will consider a number of issues related to the protection of copyrighted information on the Internet. I support a continuing dialog among the online service providers with copyright owners to examine whether or not a change in the

state of the law is warranted regarding liability and encourage the longstanding dialog organized by the working group on the issue of fair use.

As I have stated repeatedly, these hearings are a starting point. I believe H.R. 2441 represents generally the steps which we must undertake in this Congress to provide access to creative works. I am looking forward to today's testimony.

[The bill, H.R. 2441, follows:]

104TH CONGRESS
1ST SESSION

H. R. 2441

To amend title 17, United States Code, to adapt the copyright law to the digital, networked environment of the national information infrastructure, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 29, 1995

Mr. MOORHEAD (for himself, Mrs. SCHIROEDER, and Mr. COBLE) introduced the following bill; which was referred to the Committee on the Judiciary

A BILL

To amend title 17, United States Code, to adapt the copyright law to the digital, networked environment of the national information infrastructure, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “NII Copyright Protec-
5 tion Act of 1995”.

6 **SEC. 2. TRANSMISSION OF COPIES.**

7 (a) DISTRIBUTION.—Section 106(3) of title 17,
8 United States Code, is amended by striking “or by rental,

1 lease, or lending” and inserting “by rental, lease, or lend-
2 ing, or by transmission”.

3 (b) DEFINITIONS.—Section 101 of title 17, United
4 States Code, is amended—

5 (1) in the definition of “publication”, by strik-
6 ing “or by rental, lease, or lending” in the first sen-
7 tence and inserting “by rental, lease, or lending, or
8 by transmission”; and

9 (2) in the definition of “transmit”, by inserting
10 at the end thereof the following: “To ‘transmit’ a re-
11 production is to distribute it by any device or proce-
12 ss whereby a copy of phonorecord of the work is
13 fixed beyond the place from which it was sent.”.

14 (c) IMPORTATION.—Section 602 of title 17, United
15 States Code, is amended by inserting “whether by carriage
16 of tangible goods or by transmission,” after “Importation
17 into the United States,”.

18 **SEC. 3. EXEMPTIONS FOR LIBRARIES AND THE VISUALLY**
19 **IMPAIRED.**

20 (a) LIBRARIES.—Section 108 of title 17, United
21 States Code, is amended—

22 (1) in subsection (a)—

23 (A) by striking “one copy or phonorecord”
24 and inserting “three copies or phonorecords”;

1 (B) by striking “such copy or phono-
2 record” and inserting “no more than one of
3 such copies or phonorecords”;

4 (C) by inserting before the period at the
5 end of paragraph (3) the following: “if such no-
6 tice appears on the copy or phonorecord that is
7 reproduced under the provisions of this sec-
8 tion”;

9 (2) in subsection (b)—

10 (A) by inserting “or digital” after “fac-
11 simile”; and

12 (B) by inserting “in facsimile form” before
13 “for deposit for research use”; and

14 (3) in subsection (c) by inserting “or digital”
15 after “facsimile”.

16 (b) VISUALLY IMPAIRED.—Title 17, United States
17 Code, is amended by inserting after section 108 the follow-
18 ing new section:

19 **“§ 108A. Limitations on exclusive rights: Reproduc-**
20 **tion for the visually impaired**

21 “Notwithstanding the provisions of section 106, it is
22 not an infringement of copyright for a nonprofit organiza-
23 tion to reproduce and distribute to the visually impaired,
24 at cost, a Braille, large type, audio, or other edition of
25 a previously published literary work in a form intended

1 to be perceived by the visually impaired, provided that,
 2 during a period of at least one year after the first publica-
 3 tion of a standard edition of such work in the United
 4 States, the owner of the exclusive right to distribute such
 5 work in the United States has not entered the market for
 6 editions intended to be perceived by the visually im-
 7 paired.”.

8 **SEC. 4. COPYRIGHT PROTECTION SYSTEMS AND COPY-**
 9 **RIGHT MANAGEMENT INFORMATION.**

10 Title 17, United States Code, is amended by adding
 11 at the end the following new chapter:

“CHAPTER 12—COPYRIGHT PROTECTION AND MANAGEMENT SYSTEMS

“Sec. 1201. Circumvention of copyright protection systems.

“Sec. 1202. Integrity of copyright management information.

“Sec. 1203. Civil remedies.

“Sec. 1204. Criminal offenses and penalties.

12 **“§ 1201. Circumvention of copyright protection sys-**
 13 **tems**

14 “No person shall import, manufacture, or distribute
 15 any device, product, or component incorporated into a de-
 16 vice or product, or offer or perform any service, the pri-
 17 mary purpose or effect of which is to avoid, bypass, re-
 18 move, deactivate, or otherwise circumvent, without the au-
 19 thority of the copyright owner or the law, any process,
 20 treatment, mechanism, or system which prevents or inhib-
 21 its the violation of any of the exclusive rights of the copy-
 22 right owner under section 106.

1 **“§ 1202. Integrity of copyright management informa-**
2 **tion**

3 “(a) FALSE COPYRIGHT MANAGEMENT INFORMA-
4 TION.—No person shall knowingly provide copyright man-
5 agement information that is false, or knowingly publicly
6 distribute or import for public distribution copyright man-
7 agement information that is false.

8 “(b) REMOVAL OR ALTERATION OF COPYRIGHT
9 MANAGEMENT INFORMATION.—No person shall, without
10 authority of the copyright owner or the law, (i) knowingly
11 remove or alter any copyright management information,
12 (ii) knowingly distribute or import for distribution copy-
13 right management information that has been altered with-
14 out authority of the copyright owner or the law, or (iii)
15 knowingly distribute or import for distribution copies or
16 phonorecords from which copyright management informa-
17 tion has been removed without authority of the copyright
18 owner or the law.

19 “(c) DEFINITION.—As used in this chapter, ‘copy-
20 right management information’ means the name and other
21 identifying information of the author of a work, the name
22 and other identifying information of the copyright owner,
23 terms and conditions for uses of the work, and such other
24 information as the Register of Copyrights may prescribe
25 by regulation.

1 **“§ 1203. Civil rights**

2 “(a) CIVIL ACTIONS.—Any person injured by a viola-
3 tion of section 1201 or 1202 may bring a civil action in
4 an appropriate United States district court for such viola-
5 tion.

6 “(b) POWERS OF THE COURT.—In an action brought
7 under subsection (a), the court—

8 “(1) may grant temporary and permanent in-
9 junctions on such terms as it deems reasonable to
10 prevent or restrain a violation;

11 “(2) at any time while an action is pending,
12 may order the impounding, on such terms as it
13 deems reasonable, of any device or product that is
14 in the custody or control of the alleged violator and
15 that the court has reasonable cause to believe was
16 involved in a violation;

17 “(3) may award damages under subsection (c);

18 “(4) in its discretion may allow the recovery of
19 costs by or against any party other than the United
20 States or an officer thereof;

21 “(5) in its discretion may award reasonable at-
22 torney’s fees to the prevailing party; and

23 “(6) may, as part of a final judgment or decree
24 finding a violation, order the remedial modification
25 or the destruction of any device or product involved
26 in the violation that is in the custody or control of

1 the violator or has been impounded under paragraph
2 (2).

3 “(c) AWARD OF DAMAGES.—

4 “(1) IN GENERAL.—Except as otherwise pro-
5 vided in this chapter, a violator is liable for either
6 (i) the actual damages and any additional profits of
7 the violator, as provided in paragraph (2), or (ii)
8 statutory damages, as provided in paragraph (3).

9 “(2) ACTUAL DAMAGES.—The court shall
10 award to the complaining party the actual damages
11 suffered by him or her as a result of the violation,
12 and any profits of the violator that are attributable
13 to the violation and are not taken into account in
14 computing the actual damages, if the complaining
15 party elects such damages at any time before final
16 judgment is entered.

17 “(3) STATUTORY DAMAGES.—

18 “(A) At any time before final judgment is
19 entered, a complaining party may elect to re-
20 cover an award of statutory damages for each
21 violation of section 1201 in the sum of not less
22 than \$200 or more than \$2,500 per device,
23 product, or offer or performance of service, as
24 the court considers just.

1 “(B) At any time before final judgment is
2 entered, a complaining party may elect to re-
3 cover an award of statutory damages for each
4 violation of section 1202 in the sum of not less
5 than \$2,500 or more than \$25,000.

6 “(4) REPEATED VIOLATIONS.—In any case in
7 which the injured party sustains the burden of prov-
8 ing, and the court finds, that a person has violated
9 section 1201 or 1202 within 3 years after a final
10 judgment was entered against that person for an-
11 other such violation, the court may increase the
12 award of damages up to triple the amount that
13 would otherwise be awarded, as the court considers
14 just.

15 “(5) INNOCENT VIOLATIONS.—The court in its
16 discretion may reduce or remit altogether the total
17 award of damages in any case in which the violator
18 sustains the burden of proving, and the court finds,
19 that the violator was not aware and had no reason
20 to believe that its acts constituted a violation.

21 **“§ 1204. Criminal offenses and penalties**

22 “Any person who violates section 1202 with intent
23 to defraud shall be fined not more than \$500,000 or im-
24 prisoned for not more than 5 years, or both.”.

1 **SEC. 5. CONFORMING AMENDMENTS.**

2 (a) TABLE OF SECTIONS.—The table of sections for
3 chapter 1 of title 17, United States Code, is amended by
4 inserting after the item relating to section 108 the follow-
5 ing:

“108A. Limitations on exclusive rights: Reproduction for the visually impaired.”.

6 (b) TABLE OF CHAPTERS.—The table of chapters for
7 title 17, United States Code, is amended by adding at the
8 end the following:

“12. COPYRIGHT PROTECTION AND MANAGEMENT SYSTEMS 1201”.

9 **SEC. 6. EFFECTIVE DATE.**

10 This Act, and the amendments made by this Act,
11 shall take effect on the date of the enactment of this Act.

○

Mr. MOORHEAD. I now recognize the gentlelady from Colorado, the ranking minority member of the subcommittee, Pat Schroeder.

Mrs. SCHROEDER. Thank you, Mr. Chairman. I join with you in welcoming our witnesses to this afternoon's hearing, in which we continue to look at copyright issues in the context of the digital environment. Anyone who knows me knows that I like cartoons. A picture really gets to the heart of things so much quicker than being verbose. And this weekend, luckily there was such a cartoon and such a picture that I think goes right to the core of what we are talking about.

For anybody who reads "Over The Hedge," which is a cartoon by Michael Fry and T. Lewis, they address one of the central issues we are going to be addressing today. These two little critters get on line, and they are very, very excited. They think they have found a cool Web site. And they work and work, downloading this image called "The Coffee Cam."

The downloading process consumes enough time, says the cartoonist that they can read the entire works of Stephen King twice while they are waiting, but they are excited because this is coming from Cambridge University, and they can't wait to see what they have got. When the downloading is finally complete, they look at the computer screen and say, "Zowie! A live shot of a coffeemaker! Isn't technology amazing?"

Now, I think the message of this is everybody might get into the wow, wow, wow part of it once: "Isn't this interesting what we can do." But if you are going to get into it again, then it has to move beyond being a technology curiosity; it has to be something that you can really use in your daily life, and you probably don't need a picture of a coffeemaker if you got a real one right there. Content is truly what makes the digital environment a technological wonder. A live shot of a coffeemaker on your computer screen is a technology curiosity. Digital access to the complete works of Stephen Jay Gould, George and Ira Gershwin, Jay Gorney, Gabriel García Márquez, Allen Ginsberg, and Ellen Goodman, just to hit one letter of the alphabet, is a technological wonder.

But obviously this isn't going to happen without copyright protection, because otherwise anyone who gets their copyrighted works up on the Internet may never, never, never get another dime, and that is why you have pictures of a coffeemaker rather than anything else.

So I think what we are doing here today is incredibly important if the Internet is going to reach its potential. We are here today because we want to make sure that copyright protection moves with technology into the digital age, so that the balance between the rights of creators and users is not destroyed by technological developments that permit, as Marybeth Peters warned us, of "massive amounts of unauthorized copying as well as the possibility of altering works in ways that authors and publishers had not contemplated." So I am very pleased that this legislation is out here. It is a proposed beginning point. In my view, the most important role these hearings can serve is to allow us to examine with great care whether the proposed legislation maintains the careful balance of existing copyright law between the rights of creators and

users. I think that that is what our witnesses will be addressing today, and I welcome their views on that question.

I know some of our witnesses see this as an appropriate time to address the issue of online service provider liability for copyright infringement. I welcome a full discussion of this issue, and I approach it with an open mind, but my thinking at this point is it may be premature to consider a departure from the current copyright infringement principles for online providers.

I tend to agree with the white paper's conclusion that such changes "would choke the development of marketplace tools that could be used to lessen their risk of liability and the risk to copyright owners." The online service providers, if they were to get this in here, might find that they have won a battle and lost the real war for what online could do.

I must also say that I would have to be persuaded of the merits of any liability changes that would have the effect of providing an incentive for ignorance. I have never been one to provide incentives for ignorance, so you are going to have to have a real hard sell if you want to incentivize ignorance and say we are going to reward the failure of a service provider to take reasonable, responsible steps to ensure that subscribers adhere to copyright law in the use of that service.

Now, I realize there will be people who won't like that, but that is exactly how I see it at this moment. In my view, the better approach is to keep a careful watch over the legal developments, to monitor the application of copyright liability principles by the courts to see whether existing principles require changes in the digital environment, and to encourage private sector discussions to address the concerns that we are going to be hearing about this issue.

In my view, that approach is more likely to bring about a good result than a hurried attempt to couple something to this train on the basis that this is the train that is moving, and we have got to put something on it. So I am very not prone to radically revamp liability principles at this juncture.

I look forward to an invigorating exchange with all of our witnesses today. Again, thank you, Mr. Chairman, for your continuing leadership in this area.

Mr. MOORHEAD. Thank you very much. The gentleman from Wisconsin.

Mr. SENSENBRENNER. Thank you very much, Mr. Chairman. I would like to thank you for scheduling this hearing and applaud your efforts to provide Members with an opportunity to learn more about this issue and this legislation.

Furthermore, I would like to welcome all of our witnesses today, including Ms. Preston, with whom I have had the opportunity to work on another issue before this subcommittee. It will probably not come as a surprise, not to her, nor to any of my colleagues, that I am concerned about expanding the performance right upon which music licensing societies could collect royalties. Ms. Preston's testimony proposes an amendment to this bill that, "any transmission of a reproduction can also be transmission of a performance."

I am particularly interested in learning whether her proposal would allow the music licensing societies to collect a royalty for a

simple consumer purchase of a CD over the Internet. As I understand it, music licensing societies currently do not have a performance right to purchases of musical works in a traditional record store or other retail establishment, and I would be concerned if Congress would be allowing the societies to collect for the same transaction over the information superhighway in the future.

Although I expect I will be unable to be present for her response, I would like, Mr. Chairman, the courtesy of being able to submit that question for the record in the event that it is not covered by her testimony today. Thank you, Mr. Chairman.

Mr. MOORHEAD. The gentleman from Virginia.

Mr. BOUCHER. Thank you very much, Mr. Chairman. I would like to begin this afternoon by commending the administration working group for bringing to the Congress an important set of considerations for assuring copyright protection during the digital transmission of copyrighted works. The legislation that was recommended in the white paper serves as a highly useful starting point for our decisionmaking on a range of issues that affect the rights of content owners, users, and the electronic services that connect them.

In its final form, the bill must achieve a careful balance. It should offer protection to content providers by removing whatever doubt currently exists, and declaring that the digital transmission of a copyrighted work is a distribution of that work for copyright purposes. But it must also reflect an equal measure of care to address the needs of users and to assure that the maintenance of existing electronic services and the introduction of new electronic services is not hindered as a consequence of the new rights afforded to content owners.

While the legislation in its current form nicely meets the needs of copyright owners, users, and electronic service providers are not, in my view, appropriately treated and amendments are needed to assure that appropriate treatment. Let me cite just a couple of cases in point.

First, if a user browses the World Wide Web, he makes in his random access memory a transitory copy of the document that appears on his screen. That copy, that transitory copy, is a technical violation of the copyright law and results in liability for direct infringement. Even though in the typical case that direct infringement is innocently accomplished by virtue of the fact that the browser merely accesses a bulletin board on which some third party has directly infringed by posting a copyrighted work. There will be no notice of that fact, no information on the bulletin board to indicate that that is a copyrighted work, and so the infringement on the part of the browser, the user, is entirely innocent.

Now, do we really want that result, fully realizing that the transitory copy itself will be destroyed as soon as the browser moves on to the next screen and that no permanent copy is downloaded into the memory? Surely not, and I think an amendment is necessary in order to assure that that conduct does not constitute direct infringement.

A second case in point, the traditional doctrine of first-sale permits a person who has lawfully acquired a lawful copy of a copyrighted work to pass that copy along as the individual chooses.

That person can sell that work. He can give that work away, and he can do all of that without copyright infringement. That is the traditional doctrine of first sale.

Under the bill before the subcommittee, that respected doctrine would not apply to the digital transfer of a lawfully acquired document even if the originally imprinted copy in the computer's memory is destroyed at the time that the transfer takes place. That result, in my opinion, unreasonably diminishes the traditional doctrine of first sale and an amendment, I would suggest, is in order to assure that when the copy originally imprinted is destroyed, and then another copy is transmitted on that, the traditional doctrine of first sale protects that conduct.

A third case in point: Section 1201 of the bill effectively reverses the Supreme Court's *Betamax* decision, which held that there is no copyright liability on the part of manufacturers when there are both infringing and noninfringing uses for a particular device. The fact that the device has a noninfringing use under the provisions of current law as announced in the *Betamax* decision shields the manufacture of that device from copyright liability no matter what use that device is ultimately employed for on behalf of the purchaser.

Section 1201 would render manufacturers liable if a primary purpose of effect of the technology is to circumvent anticopy technology. Manufacturers will not know in advance what primary purpose or use a given purchaser is going to put a device to when that device has both infringing and noninfringing uses. And so the manufacturer in the typical case is going to be very concerned about marketing the product and much very useful technology that has multiple uses, some of which are infringing, some of which are not, may well be impeded in terms of the introduction of that new and useful technology to the market. That, I think, also is an unfortunate result which needs to be corrected, and I was encouraged by the chairman's indication of a willingness to engage a serious discussion with regard to that issue.

Fourth, and perhaps most troubling of all is the absence in the bill of provisions, addressing the concerns of the industries that provide data transmission bulletin boards and related services. The white paper and the bill proceeds from the assumption that online service providers should have strict liability and be treated essentially like book stores with the expectation that they monitor all traffic and all postings on their service.

With transmissions literally numbering in the tens of thousands on a daily basis for a given service, that expectation of monitoring is clearly unrealistic. In those instances where an electronic service provider has actual knowledge of a third party's infringing activity, and has the targeted ability narrowly to disable that particular infringement, then certainly the provider should be expected to do so.

By the same token, given the tremendous number of daily transactions on many services, the provider who has no knowledge should have no liability. These principles, to me, seem to be both obvious and fair. In fact, Mr. Valenti, in his prepared statement, which will be presented to this subcommittee, makes the point that in the relatively few cases that have been decided to date, given the recent arrival of most of this technology, liability has not been

imposed on service providers except in those instances where the provider had actual knowledge of the infringement or had directly participated in the infringement.

Perhaps our task is as simple as codifying the case law, as interpreted to us by Mr. Valenti, embodying those principles: Requiring actual knowledge or direct participation as a predicate to liability. To do so, I would suggest, would be a perfect mirror image of the primary change that we are making on behalf of the copyright owners.

As the subcommittee memo states on page 1 and I quote this, "We are codifying case law, clarifying that the right of public distribution and U.S. copyright law applies to the digital transmission on computers," end of quote. If we can codify case law for the benefit of intellectual property owners, then surely we can do the same for the electronic service providers. And I would very much hope that we would choose to do so.

In an effort to research consensus on the question of the liability of online providers, I ask the companies involved in transmission and bulletin board operations to produce a statutory proposal which could be used as a discussion draft to begin negotiations with content providers with the administration, with interested members of this subcommittee and with the subcommittee staff. That draft has been prepared for the purpose stated.

It is a negotiating document intended for the purposes of beginning a serious discussion and a serious examination of the issues surrounding the liability of online providers. Unfortunately, those serious discussions have not begun. And in my conversations with the content providers, with the administration, with subcommittee staff, and with others, and, in fact, as reflected in my good friend, Mrs. Schroeder's statement, there is a preliminary intention to report this bill without addressing the very legitimate concerns of the electronic community.

I think that would be a serious mistake and would only ensure that the progress of the bill is attended by greater, rather than by lesser, controversy. So I will offer some advice for what it is worth. First, resolving the online liability issue, as well as the other issues that I have raised, may be an easier task than you think.

At the very least, a good faith effort ought to be made to try to do so. Second, if the goal is obtaining smooth passage of the bill, a resolution of the online issue at this stage is the most assured recipe for success. Otherwise, a protracted struggle pitting many of the Nation's largest companies against each other is virtually assured and the likely outcome would be a continuation of this debate into the next Congress and no legislation enacted.

I want to aid in the passage of the bill this year, and I think that a good faith negotiation involving all of the interested parties will be the only course to success and I hope that others will agree. Thank you very much, Mr. Chairman.

Mr. MOORHEAD. The gentleman from California, Mr. Bono.

Mr. BONO. Thank you very much, Mr. Chairman. I have been very concerned about this for a long time and when I saw the capabilities of a computer and watched it expand, it struck me as early as a year ago, I said to my office that—my office staff that the computer is going to be a tremendous problem, and I will tell you why.

I consider it an anarchist. It is the biggest communicator in the world with no rules whatsoever. So now you can—you can communicate on a worldwide basis and there are no rules at all. So this is the first time in history that this has happened.

Now, you couple that with the trademark laws and with copyright laws and with the rules that we do have that we can now control, and put it on this device that we can't control and say no one assumes responsibility here, there is no responsible figure for this. And I appreciate the chairman trying to protect copyrights, which is essential because copyrights are as important as anything else, but they are not viewed that way because people can't see them as is a chair or as a car, and so in its present form, this is nice and is a nice beginning.

Now, what the solution to this is can only be where does the responsibility lie and how can we control the responsibility? And I don't see that anywhere. The provider says he can't control the responsibility, and so he doesn't want to take responsibility. And so no one wants to take responsibility.

Well, what I promise you will happen is we are going to fill the courts on this issue and decisions are going to be made both ways because copyrights themselves are very convoluted and hard to understand, and so I think we have a monumental issue on our hands. We have a new communicator that is staggering in its ability, and to say that we are not going to assess responsibility and only make the courts responsible, I think is a mistake and at some point I think that we have to assess a responsibility, whether it is to put something in the machine, or whether the provider has to somehow create a way of finding out if someone does communicate in a form that is illegal.

But just to throw it out there the way it exists now, I promise you, all of us, that we will have many more problems to come and what Congress is very good at is when there is a problem, they pass legislation to correct that little problem and generally they fix that little problem but create about 500 more, and I am concerned that we may do the same thing here, because there is expertise required here, and we certainly, as Congress men and women, don't have the expertise in some of these issues that we should have, so how we try to protect all of this with the knowledge that we have is going to be incredibly interesting.

Again, I think, yes, we must protect copyrights. I don't think copyrights have really been understood to this date, but we are getting there. So I congratulate the chairman for bringing this forward. I think it is a first step. But if I had one message, my message is this: You can't have anything that has this kind of communication ability with no rules. So we better start attaching rules that have control applied to them. And as far as I can understand, what is occurring right now, we don't—we are unable to define responsibility and really apply rules that have significance because there are a million ways to get around all of this stuff. And so we are going to look at this in great depth and add much more to this than we have currently. Thank you, Mr. Chairman.

Mr. MOORHEAD. The gentleman from Virginia, Mr. Goodlatte.

Mr. GOODLATTE. Thank you, Mr. Chairman. I want to thank you for holding this second round of hearings on the NII Copyright Pro-

tection Act and for your leadership on this issue. We all realize that this legislation will have a significant impact on the development of the brave new world of the global information highway and must carefully balance the rights of copyright owners and Internet users. Therefore, we are all anxious to do it right.

A number of concerns have been raised about the bill, which I hope our witnesses will discuss. The first issue is that of online service provider liability. I understand the legitimate concerns of my colleague and neighbor from Virginia, Mr. Boucher. There has been much debate whether Congress should address OSP liability in this legislation. I am anxious to hear our witnesses' opinions on this issue. However, I must state from the outset that I do not want to see this issue bring H.R. 2441 to a screeching halt. Therefore, Mr. Chairman, pending the outcome of the testimony over the next 2 days, I may be suggesting that the subcommittee provide a forum for the ongoing discussions referenced by Congressman Boucher currently progressing between the copyright owners and the online service providers.

This subcommittee, under your leadership, Mr. Chairman, has a history of preferring that commercial disputes be resolved between the parties rather than through the legislative process, which may favor one interest group over another. While I understand that private discussions taking place each month have begun the debate, perhaps a little push from this subcommittee would be appropriate to speed along a resolution of the liability standard question. The alternative, Mr. Chairman, a private commission, could be appointed to study the issue and report back to Congress within a reasonable time, perhaps 6 months, with their recommendations as to whether legislation is necessary and if so, what direction it should take.

Fair use is also a concern for many of you, and I would like to hear your comments on how the concepts of fair use will apply in cyberspace. Anticopy technology and encryption are of special interest to me. In fact, I am currently working on legislation to address the problem of our administration's restrictions on encrypted exports and rumored future restrictions on domestic use.

Strengthened copyright protections will be useless unless copyright owners can protect their rights through encryption. I am fearful, however, that section 1201 may be too far-reaching and have some unintended consequences. Some fine tuning of the language may be in order. And, again, I thank you, Mr. Chairman, for holding these hearings, and I look forward to hearing from all of our witnesses.

Mr. MOORHEAD. Thank you. Our first witness on the first panel this afternoon is our friend, Mr. Jack Valenti, who is the chairman and chief executive officer of the Motion Picture Association of America. I have had the pleasure, as have all the members of this subcommittee, to work with him on many occasions.

Mr. Valenti is a graduate of the University of Houston and Harvard Business School. He cofounded the advertising and political consulting agency of Weekley & Valenti. He served as Special Assistant to the President in the Lyndon Johnson White House and became the third president and CEO of the MPAA in 1966. Since that time, Mr. Valenti has presided over many changes in the film

industry and has authored numerous books and essays. Welcome, Mr. Valenti.

Our second witness will be Ms. Frances Preston, who is the president and CEO of Broadcast Music, Inc., or BMI, a music performing rights organization representing more than 115,000 songwriters and composers and 55,000 music publishers.

Ms. Preston joined BMI in 1958 after working in the music and broadcasting industries in Nashville. She was appointed senior vice president of Performing Rights in 1985 and president and CEO in 1986. She is a member of BMI's board of directors. Ms. Preston also serves on the National Academy of Recording Arts and Sciences and the President's Advisory Council. She has been recognized for her achievements by many award organizations and has dedicated much of her time in service to charities and community organizations. Welcome, Ms. Preston.

Our third witness is Mr. Edward P. Murphy. Mr. Murphy is the president and CEO of the National Music Publishers' Association. Prior to assuming his duties at NMPA, Mr. Murphy served as president of G. Schirmer, Inc., a large American music publishing house. Mr. Murphy serves on the advisory board of the International Intellectual Property Alliance and is a member of the International Copyright Panel of the U.S. Advisory Committee on International Intellectual Property. He founded the International Copyright Coalition and is secretary of the National Music Council. Welcome, Mr. Murphy.

We have written statements from our three witnesses. I ask unanimous consent that they all be made a part of the record. And I ask all of you to summarize your statements in 10 minutes or less. I ask the subcommittee to hold questions of all witnesses until they have completed the oral arguments of each of the witnesses. We begin our testimony with Mr. Valenti.

STATEMENT OF JACK VALENTI, PRESIDENT AND CEO, MOTION PICTURE ASSOCIATION OF AMERICA, INC.

Mr. VALENTI. Thank you, Mr. Chairman, members of this committee. We are poised as a nation, as you have pointed out, to leap into a future whose shape is not fully known and whose form is still very much ill-defined. But what we do know is that this binary numbers future will come. It is the mandate of this committee and this Congress to try to peer beyond the veil and to make what would be called sensible and required judgments about what ought to be done to protect America's grandest trade asset, its intellectual property, in an era of technology so magical it verges on sorcery.

This legislation, which has been introduced by you, Mr. Chairman, Congresswoman Schroeder, and Congressman Coble, I think sets forth with great clarity the fence line boundaries beyond which intellectual property is put to hazard. This committee knows full well the broad scope of intellectual property. Just 2 years ago, the last full numbers that we have, it produced \$45 billion in international trade. It is one of the huge producers of surplus balance of trade for this country, and that is a phrase seldom heard in the corridors of the Congress.

I think without using hyperbole, though I have been known to do that from time to time, these creative works are the jewel in

America's trade crown, no question about that. To protect these delicate products in cyberspace is of transcendent importance, or to paraphrase what Chairman Moorhead said, if you cannot protect what you own, you don't own anything.

Now, MPAA fully supports what you have done here. My sole reason for being here is to offer three recommendations. I do not think any of them are unworthy. The first is quite important. Each year, pirates and thieves try to plunder the whole greenhouse of intellectual property, not only here, but around the world, and each year those of us in the creative community are vigilant every day, spend millions of dollars to stand guard over what we create, to punish thieves, and to swiftly move against those who try to steal what we own, to make it risky and expensive for pirates to ply their trade.

As currently drafted, there are no criminal penalties in this bill for infringement. This is a serious defect. I will tell you why. Over 20 years I experienced in fighting piracy tells us that without criminal penalties, piracy remains a very high-reward, low-risk business.

Now, we will continue our war against pirates, but you have got to give us the weaponry to deal with them in a most reasonable and impressive way. Pirates have become more sophisticated. They are armed with new technology and hackers and others are going to invade the NII, and to bring them to heel is going to require more than civil penalties. Pirates and hackers laugh at civil penalties. It is a cost of doing business. And criminal sanctions, that will make their eyes smart a little bit and give them pause.

Now, my second recommendation is to resist—and I say this with all respect to my good friends on this panel—to resist those who clamor for copyright exemption for online providers. Online providers and others have to be held accountable for copyright violations committed by users. Who is responsible, as Congressman Bono said? Who is responsible if a provider, if somebody copies on digital video machine and then makes copies of it, where the thousandth copy is as pure, as pristine as the first, and if no one is held responsible for that, then who and what is to prevent the flood of violation that are going to surely follow?

This is a loophole, Mr. Chairman, larger than a parade of eighteen-wheelers through which a whole dam-busting flooding is going to rupture the purpose of your bill. And those who sing songs of doom about online providers, of about plying current standards of copyright liability that is going to harm the providers, I think, with all due respect, are singing a little off key. No court as yet has ever found any online provider guilty of anything. The innocent have always been protected. It is only if you deliberately or participate in the infringing action, or you are actually aware of it, then you have got a small problem. Otherwise no innocent will be punished.

My third recommendation has to do with fair use. Under current fair use doctrine, the guidelines have been developed over a number of years. We are all aware of them. And I think that what should not be done is to trifle with current law to fix something on speculation or what might happen. Please don't legislate, as we say, by—in Las Vegas, "by betting on the come."

I don't believe, Mr. Chairman, any of these recommendations are unworthy. I think they are an indispensable part of the protective shield, which is absolutely indispensable to safeguard this precious property.

Once more I want to congratulate the leadership of this committee. I think you are riding into the future. You are doing it briskly, and you are making the journey not 1 minute too early. Technology moves with terrorizing speed, and we really don't know what this future is going to bring. Mark my word, nobody knows. So unless the traffic rules are explicit and understandable and inhabited by commonsense protective design, this superhighway, this information superhighway, cyberspace, or Internet, call it what you choose, technology will collapse the great national asset of intellectual property and the Nation will be the loser, big time. I am quite enthralled by what I am saying, but I think I will stop at this point.

[The prepared statement of Mr. Valenti follows:]

PREPARED STATEMENT OF JACK VALENTI, PRESIDENT AND CEO, MOTION PICTURE ASSOCIATION OF AMERICA, INC.

We are poised as a nation to leap into a digital future whose shape is not fully known and whose form is still ill-defined.

But what we do know is this binary numbers future is coming. It will have large impact, as well as both sublime and dislocating effect, on millions of Americans. It is the mandate of the Congress to peer beyond the veil, to make sensible and required judgments about how to make absolutely sure that America's grandest trade asset, its intellectual property, is protected in an era of technology so magical it verges on fantasy.

The legislation, H.R. 2441, introduced by Chairman Moorhead, Congresswoman Schroeder and Congressman Coble sets forth with admirable clarity the fence line boundaries beyond which intellectual property is put to hazard.

This committee knows full well the broad global sweep of American intellectual property which in 1994 produced over \$45 billion in international sales, and is that rarity, a producer of surplus balance of trade, a phrase seldom heard in the corridors of the Congress. These creative works are the jewels in America's trade crown. To protect these delicate products in cyberspace is of transcendent importance. For if you cannot protect what you own, you own nothing.

The motion picture industry is eagerly crossing the threshold of this exiting digital world. MPAA fully embraces this legislative measure as a needed step in updating the copyright law for this new environment. My sole reason for being here today is to offer, with respect and necessity, three specific recommendations, without which the bill will shrink the adequacy of intellectual property protection.

The first is quite important. Each year pirates and thieves the world over try to plunder the greenhouse of intellectual property. And each year those of us in the creative community spend millions of dollars to stand guard against this thievery, to punish violators, to move swiftly against those who are responsible, to make it risky and expensive for pirates to ply their trade. One key weapon in our anti-piracy arsenal is technology itself: electronic locks of various kinds that seek to prevent high-tech burglars from breaking, entering, and plundering our intellectual property.

As the bill is currently drafted, there are no criminal penalties applied to those who would circumvent copyright protection technology. This is a defect, indeed the only significant defect of which I am aware, that must be fixed.

The provisions of this bill that protect copyright protection technology are of paramount importance to content providers. We need to apply technological security measures to protect our property against unauthorized copying and distribution. These self-help measures will be our first line of defense against cyber-pirates. The copyright law can only provide sanctions when and if we are able to identify infringers. Technological security measures can stop the piracy before it happens.

But all security measures, no matter how sophisticated, can be circumvented by clever hackers. Therefore, the law must provide clear and effective sanctions against those who would violate the security of the NII. This requires more than mere civil remedies. *Criminal* sanctions are essential. Too many NII bandits, some operating totally in the underground economy, will scoff at the threat of civil damages, which

many regard as simply a cost of doing business. There must be criminal penalties attached to deliberate, systematic acts of circumvention if such acts are to be seriously lessened.

The Communications Act now provides criminal penalties for unauthorized decoding of satellite signals and for the theft of cable services. Similar *criminal* sanctions must be available to effectively deter those who would make it their business to circumvent copyright protection technology. Without criminal sanctions, our first line of defense against cyber-theft will be porous and ineffectual.

My second recommendation is to resist those who are clamoring for a copyright exemption for on-line service providers. On-line service providers and others have a key role to play in freeing cyberspace of the taint of copyright lawlessness. Accountability for copyright violations committed by users is as essential for advancing this indispensable goal.

Who is responsible if a valuable copyrighted work is downloaded from a provider, and then copied on a digital video machine from which thousands of copies can be made, the last copy as pure and pristine as the first? And if no one can be held responsible, then who and what is to prevent the flood that will surely follow? This is a loophole larger than a parade of eighteen-wheelers through which a dam-busting avalanche of violations can rupture the purpose of your bill every day.

Although there has been much said about the dire consequences of applying existing standards of copyright liability to on-line service providers, in truth, there is as yet no evidence of any disfunction in the statute that requires fixing. No court has found an on-line service provider to be guilty of infringement except where the provider *participated* in infringing activity or was actually *aware* of infringing activity carried out by a user of the on-line service. Despite what you have heard, there is no imminent threat of debilitating damages against "innocent" on-line providers.

There may be a need for certain adjustments in the copyright law regarding on-line services. In fact, MPAA, participating with twenty-two other media organizations in the Creative Incentive Coalition, has initiated discussions with on-line service providers to identify problems that confront both content owners and on-line services, and to formulate solutions where problems are found. This dialog has produced a greater understanding on both sides for the problems associated with protecting intellectual property in the on-line environment. Ultimately, we may come to you with legislative suggestions. But, for the time being, I urge you to not to act precipitously, before the evidence is in, and before the problems have been certified.

The third recommendation concerns Fair Use. Widely accepted and observed Fair Use guidelines have been developed under existing law. They serve the vital interests of both copyright owners and users.

Some urge that the existing Fair Use guidelines must be revised and made more "flexible" for the digital environment. As part of the process that generated the bill here under discussion, various groups representing educators, content providers, public interest groups and the general public have met in various fora to discuss how existing concepts of Fair Use will apply in cyberspace, and whether changes are required. As with the on-line issue, all the evidence is not yet in; the problems, if there are problems, have not been certified.

I urge you not to legislate solutions before the problems are fully known. We do know that intellectual property must be protected, for it is essential for our future intellectual and economic well being. We also know, after two years of public meetings, thousands of pages of public comment, and a comprehensive and scholarly White Paper, that a very few, modest amendments to our copyright laws are needed to protect intellectual property distributed through the national information infrastructure. Let us do what we know must be done, now, and work together to determine whether more is needed in the future.

Mr. Chairman, I don't believe any of these three recommendations are unworthy. To the contrary, they are essential to your task of creating the protective shield which safeguards precious property.

Once more I congratulate the leadership and the membership of this Committee. You are striding into the future briskly and you are making that journey not one minute too early. Technology moves with terrifying speed. If the traffic rules are explicit and understandable, and accompanied by common-sense protective designs, this technology will be an incalculable boon to America, a shot in the arm to our international competitiveness, and a stimulus to our creative industries. If not, then the information superhighway, cyberspace, the Internet, call it what you will, technology will collapse the great wonder of intellectual property. The country will be the loser. Big time.

Mr. MOORHEAD. Thanks, Mr. Valenti.

Mr. VALENTI. While the green light is on, I would like due note to be taken of, Mr. Chairman.

Mr. MOORHEAD. Ms. Preston.

**STATEMENT OF FRANCES W. PRESTON, PRESIDENT AND CEO,
BROADCAST MUSIC, INC.**

Ms. PRESTON. I don't know why I always seem to follow Jack Valenti, which is a problem. But thank you for this opportunity to testify before the subcommittee on a very important piece of legislation, H.R. 2441, the NII Copyright Protection Act of 1995. My name is Frances Preston, and I appear before you today as president and chief executive officer of Broadcast Music, Inc., better known as BMI. BMI represents the public performing rights of over 180,000 songwriters, composers and music publishers in all States and throughout the world. I will begin with the statement: I am not a lawyer, nor am I a technocrat.

In my brief time I would like to make three points. First, content must be protected on the information superhighway. For without content, the superhighway will never reach its full potential.

Second, the public performing right must be defended and any attempt to weaken it should be opposed.

Third, H.R. 2441 may require modest redrafting to accommodate the concerns.

Mr. Chairman, when you introduced H.R. 2441, you emphasized that intellectual property must be protected in the electronic universe. You observed, as did the white paper, that the success of the NII could be jeopardized without the protection of content. We agree.

On a daily basis, newspapers trumpet the success of the Internet and online services and report the development of partnerships between transmission and content interests. To quote Ed Bennett, chief executive of Prodigy, music is already one of the most important destinations on the Internet. Or in the words of the white paper, what will drive the NII is the content moving through it. Service providers, transmission entities, and content packagers such as MCI, Prodigy and others, are searching furiously for ways to charge for content. In the age of mega-mergers, protecting songwriter rights has never been more important.

For BMI, the most important aspect of H.R. 2441 is section 2, which provides amendments to current copyright law to clarify that an electronic transmission may be a distribution under copyright law. BMI's position is very clear. We are not against clarification of a distribution by transmission right, as long as the current performing right continues to exist and songwriters, composers and music publishers are not harmed.

As you know, BMI's fundamental role is to license one of the six exclusive copyright rights, the right to perform publicly musical works for uses on radio, television, cable, satellite, concerts, et cetera, wherever music is heard or communicated to the public. In changing this Nation's copyright law, I would ask that you not think in terms of superstar songwriters, such as Paul Simon or Gloria Estefan or Ray Charles. The typical songwriter does not receive income from making records of his or her own songs, nor does

he or she receive income from concert tours, television appearances, commercials, sale of souvenirs, T-shirts, and so forth.

The typical songwriter receives a modest income for the creative efforts of writing music that is publicly performed by others. Ask yourself, can you name who wrote Frank Sinatra's hit, "New York, New York," or Elvis Presley's "Heartbreak Hotel?" Most people know who performs the song but not who wrote it. My plea to you is that you do not forget the songwriters and the composers.

BMI is concerned about how best to achieve the underlying goals of section 2 without causing unintended consequences to the public performing right. We believe that the law should be clear without gray zones. Swift action should be taken so that people do not get into the habit of breaking copyright laws.

Under current law, section 101 of the Copyright Act, to transmit a performance: " * * * is to communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent." H.R. 2441 adds a new and independent sentence to section 101: "To transmit a reproduction is to distribute it by any device or process whereby a copy or phonorecord of the work is fixed beyond the place from which it was sent." While these two sentences do not seem to be mutually exclusive and do not stand in competition with each other, it should be made explicitly clear in any legislation that such rights mutually coexist and that a single transmission may implicate both copyright rights. This is consistent with the bundle of rights philosophy that is embraced by the Copyright Act.

Since this understanding is not clear, the subcommittee should consider drafting a change to clarify that a transmission of a reproduction of a musical work can also be a transmission of a performance of that musical work.

In response to Congressman Sensenbrenner, we are not trying to expand our rights for electronic sale of CD's. Let the courts decide. We believe it is a public performance and we think the marketplace should decide how to value it. The subcommittee may hear some creative arguments that transmissions you cannot see or hear at the moment of their transmission constitute copies and not performances. We disagree.

In considering these arguments, rely on the past record of Congress. In the 1976 act, the public performance right was broadly defined to include transmissions of musical works by any device or process, including computers. These issues are not new ones. Digital transmissions on the information superhighway are functionally equivalent to and promise to be commercially competitive with radio and television broadcasting and cable transmission, be they satellite or terrestrial and other existing media. They must continue to be public performances.

BMI supports H.R. 2441. We look forward to working with the subcommittee to resolve our sole drafting concern, and I appreciate the opportunity to appear before all of you today. Thank you.

[The prepared statement of Ms. Preston follows:]

PREPARED STATEMENT OF FRANCES W. PRESTON, PRESIDENT AND CEO, BROADCAST MUSIC, INC.

Thank you for this opportunity to testify before the Subcommittee on a very important piece of legislation, H.R. 2441, the "NII Copyright Protection Act of 1995."

My name is Frances Preston and I appear before you today as President and Chief Executive Officer of Broadcast Music, Inc. (BMI). BMI, one of this country's three performing rights organizations, represents the public performing rights of over 180,000 songwriters, composers, and music publishers in all 50 states and throughout the world. BMI also represents thousands of foreign composers and songwriters whose works are performed in the United States. There are over 3 million musical works in the BMI repertoire. As this Subcommittee knows, BMI has testified on numerous occasions about amendments to the copyright law to meet technological advances in the distribution and performance of music.

I am not an attorney, nor am I a technocrat. My expertise is the music business, which has been my life for over three decades. For the past two years, I—along with Jack Valenti who sits next to me today—and thirty-five other distinguished Americans have served as members of the National Information Infrastructure Advisory Council (NIIAC). I do not appear today as a representative of the NIIAC. But I feel that the Council members wrestled with and achieved consensus on a number of issues, most particularly the importance of the availability and the protection of intellectual property in the National Information Infrastructure (NII).

It is my intention to cover four subjects. First, content must be protected on the Information Superhighway; without content, the Superhighway will have far less passengers. Second, the public performing right must be defended, and any attempts to weaken it should be opposed. Third, some specific concerns, with drafting suggestions, will be expressed about section 2 of H.R. 2441. Finally, several observations will be made about other provisions in H.R. 2441 or raised by its provisions.¹

I.

First, BMI applauds the underlying motivation behind H.R. 2441—that intellectual property must be protected in the electronic universe. Mr. Chairman, when you introduced H.R. 2441, you emphasized this underlying motivation in your floor statement. You observed that the success of the NII could be jeopardized without the protection of content. Three weeks ago, the Wall Street Journal ran an interesting article entitled "Internet's Popularity Threatens to Swamp The On-Line Services," reporting that on-line services (such as America On-Line, Compuserve and others) are entering the content creation business in order to generate revenues for themselves. Last week, we read in the Washington Post that "MCI and Microsoft Plan On-Line Internet Effort." Bill Gates reflected on the rush of major companies to turn the Internet into a profitable venue for themselves and stated: "You're going to see a lot of partnerships." Microsoft has already teamed up with NBC to make content available through its on-line service, the Microsoft Network. With passage of communications act reform, just think what Americans are going to see in terms of partnerships and resultant competition. Many partnerships, I predict, will inevitably be rooted in the economic value of content, be in information or entertainment.

The Report of the Working Group on Intellectual Property Rights (chaired by the Honorable Bruce A. Lehman) on "Intellectual Property and the National Information Infrastructure" (White Paper) wisely predicted the convergence of technology and content, with the latter driving technological changes: "All the computers, telephones, fax machines, scanners, cameras, keyboards, televisions, monitors, printers, switches, routers, wires, cables, networks and satellites in the world will not create a successful NII, if there is not content. What will drive the NII is the content moving through it." (at page 11). This Subcommittee scarcely needs reminding that the full potential of the NII cannot be achieved without the protection of content. The rights conferred under this country's intellectual property laws, established by Congress, are a means by which important public policy goals are achieved. The protection of creators' exclusive property rights in their respective works presently remains and shall always remain the bedrock public policy. It is the best way for policymakers to spur artistic and intellectual creativity in a free market economy.

During more than two centuries of American independence, with periodic amendment, the Copyright Act has provided protection for an ever-increasing variety of works of authorship. The genius of our intellectual property laws, particularly in an era of reduced federal expenditures, is that they are self-enforcing, cost-free to the taxpayer, and without the need for large government bureaucracies. Stated simply, the protection of intellectual property by the Copyright Act has been responsible for a success story in the United States. Your goal in legislating for the Information Superhighway should be to build upon that success. You are on the right track.

¹In addition, BMI has submitted a legal memorandum on the impact of the NII Copyright Protection Act of 1995 on the public performing right.

II.

Today, my primary focus will be on section 2 of H.R. 2441, which provides amendments to current copyright law to clarify that an electronic transmission may be a distribution under copyright law. BMI's position is very clear. We are not against clarification of a distribution by transmission right, as long as the current performing right continues to exist and songwriters are not harmed. If Congress enacts the proposed legislation, the bill must be explicitly clear that these rights co-exist in the world of digital communication technologies.

H.R. 2441 provides for peaceful co-existence of rights. Section 2 does not create a new right; it merely clarifies that copies of phonorecords of works can be "distributed" to the public by transmission, and that such transmissions fall within the exclusive distribution right of the copyright owner.

To understand fully how section 2 may have an impact on the income of songwriters and music publishers, some background is in order about BMI and how songwriters and music publishers earn their livings. BMI's fundamental role is to license one of the six exclusive copyright rights, the right to perform publicly musical works, for uses on radio, television, at concerts, and so forth—wherever music is heard or communicated to the public. In proposing changes to this nation's intellectual property system, I would ask that you not think in terms of the superstar songwriters such as Paul Simon, Dolly Parton, Gloria Estefan, or Aretha Franklin. The typical songwriter does not receive income from making records of his or her own songs, nor does he or she receive income from concert tours or television appearances, commercial endorsements, sales of souvenirs, and so forth. The typical songwriter receives a modest income from his or her creative efforts at writing music that is publicly performed by others. Any change in copyright law which would constrict or adversely affect the performing right would be disastrous to the livelihood of most songwriters.

Under present law, a work is publicly performed if it is transmitted in such a way that it can be seen or heard by the public, such as a broadcast, or by a limited portion of the public, such as cable or satellite transmissions which are available only to subscribers. Similarly, a work is publicly performed if it is transmitted electronically over-the-air by a network to a local broadcasting station or a cable system. The transmission does not lose its characterization as a performance depending on the number of people who choose to receive the transmission. Indeed, an electronic transmission of a musical work is a public performance even if no one hears the transmission. Through collective rights organizations—BMI, ASCAP and SESAC—songwriters receive royalties for these performances. These performance royalties allow songwriters to make a living by being compensated for their creative efforts.

III.

BMI does have concerns which relate to how best to achieve the underlying goals of section 2 without causing unintended consequences to the public performing right.

Under current law (17 U.S.C. § 101), to "transmit" a performance "is to communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent." Section 2 of H.R. 2441 adds a new and independent sentence to section 101: "To 'transmit' a reproduction is to distribute it by any device or process whereby a copy or phonorecord of the work is fixed beyond the place from which it was sent." While these two sentences do not seem to be mutually exclusive and do not stand in competition with each other, it should be made explicitly clear in any legislation that such rights mutually co-exist and a single transmission may implicate both copyright rights. This is consistent with the "bundle of rights" philosophy embraced by the Copyright Revision Act of 1976 and endorsed by the White Paper.

If this understanding is not clear from the express language of section 2, the Subcommittee should consider a modest drafting change to clarify that any transmission of a reproduction can also be a transmission of a performance.

The Subcommittee is to be commended for the expertise with which it managed to clarify this fundamental concept in the Digital Performance Right in Sound Recordings Act of 1995 (1995 Act), Public Law 104-39, signed by the President on November 1, 1995. That Act, in its express text, clarifies that nothing "annuls or limits in any way . . . the exclusive right to publicly perform a musical work, including by means of a digital audio transmission. . . ." It is BMI's opinion that the Subcommittee should consider insertion of a similar language in the express language of H.R. 2441.

Our concerns about section 2 and its legislative history are substantially accommodated by the holding of these hearings and the creation by the Subcommittee of

its own record and debate on the issues. We presume that the Subcommittee (and Committee) will prepare its own legislative history, and BMI would be pleased to work with you to clarify what is intended by the changes proposed in section 2 of H.R. 2441.

The Subcommittee may hear some creative arguments about distinctions that might be made between transmission of copies of works and transmissions of performances or displays of works. Some would express the view that "downloading" musical works using computer, and other "compressed" digital file transfer, ought to be considered only a distribution and not a performance. They interpret the existing law as being limited to transmissions that are capable of being seen or heard while being electronically transmitted and argue that the sending of a digitized form of a work does not constitute a performance unless and until the digital information is reconverted into sounds or images that are audible or visible.

The problem with this view is that if it applied to digital transmissions, it could equally apply to the analog radio and television broadcasts which were so clearly meant to be covered by the public performance right. After all, standard radio broadcasts are not audible to the human ear until the radio waves received by the antenna are reconverted by the radio receiving set. Moreover, conventional analog radio equipment is fully capable of receiving radio signals and recording them on tape even if the loudspeakers attached to the radio receiver are not turned on and no one at home is listening. Home taping of conventional television and radio signals is, of course, a widespread practice. The fact that on-demand transmissions might be downloaded or otherwise reconverted into audible sound at a time after the transmission has occurred would seem to be made irrelevant by a provision in the Copyright Act that a transmitted performance remains "public" even if it is received "at different times" by each member of the public. Furthermore, the legislative history makes it clear that a transmission is complete once it is sent, so long as it is capable of audible reception by the public.

The recent enactment of the 1995 Act, which became effective just last week, supports our view that digital transmissions of musical works do not have to be seen or heard in real time in order to be considered public performances under the Copyright Act. In fact, at the current meeting of the Committee of Experts on the Berne Protocol being held at the WIPO (World Intellectual Property Organization) in Geneva, Switzerland, the delegate for CISAC (Confédération Internationale des Sociétés d'Auteurs et Compositeurs), delegates of various countries, as well as delegates of non-governmental organizations, have espoused the view that a specific technology should not and does not eliminate the public performing right. Compressed transmissions on the NII implicate the performance right every bit as much as real-time transmissions. The fact that performances may occur in diverse locations and at different times will not exempt them from the public performing right.

IV.

The NII Copyright Protection Act of 1995 is minimalist in its approach to the many intellectual property issues raised by the NII. It does not confront problems that may be looming on the distant horizon. The fact that more comprehensive amendments are not being proposed is a tribute to the resiliency of the Copyright Act and to this Subcommittee which, of course, is responsible for the good health of the Act.

Allow several parting thoughts about some other issues either raised by provisions in H.R. 2441 or likely to be raised during Subcommittee hearings.

Liability: The question of liability in the NII environment is certainly important, not only for those who engage in distribution and carriage activities but for content providers as well. BMI submits that the issues are not yet ripe for congressional resolution. On-line service providers, regional telephone companies, long-distance carriers, and cable television operators have played or will play an integral role in the technological development and expansion of the NII. The growth of distribution activities has been phenomenal; that growth rate shows little sign of decreasing.

Growth does not mean that we should eliminate or reduce liability for copyright infringements in the digital universe. To the contrary, if the protection of exclusive rights is emasculated, the flow of content will be reduced, and the growth rate will decrease. As noted above, distribution interests of today are becoming the content providers of tomorrow. Their positions on liability may change overnight.

The intersection of technological change, intellectual property and liability issues is nothing new for this Subcommittee. You have experienced controversial issues in the past—posed by broadcasting, cable television, satellite delivery services, semiconductor chips, and digital audio recording devices—and your responses have not been to eliminate liability but to rechannel technological changes into the copyright

system. Debate about what sort of statutory scheme you should create will have to await another day and another series of hearings, and perhaps private sector negotiations. For the moment, I can assure you that the solution does not lie in an absolute from liability.

Licensing: Voluntary collective licensing—as manifested by BMI's over fifty years of experience—has played and will continue to play an important role in the licensing of intellectual property. BMI's current licensing initiatives with new-technology users of musical works is evidence that collective licensing retains the tremendous efficiency advantages it has always enjoyed for frequent uses that are each of small economic value but are very significant in the aggregate. Voluntary collective licensing is superior to compulsory licensing in every regard. Voluntary licensing also keeps government out of a successful economic endeavor and allows free market forces to prevail. For those transmission entities who are extremely concerned about liability issues, BMI invites you to explore licensing opportunities.

Copyright Management Information: Copyright management information associated with a work—such as the name of the author or copyright owner and the terms and conditions for use of the work—will serve to promote licensing and reduce liability concerns. The integrity of this information will be important in the NII and H.R. 2441 is a positive step forward in promoting the development and use of reliable rights management information. In this regard, BMI supports the relevant provisions of section 4 of H.R. 2441.

Technological Protections: Technology protections for copyrighted works will flourish in the digital environment just as they are flourishing in the areas of system security, currency protection, credit and banking, and privacy. While BMI is not currently affected by the provisions of the bill that bar the circumvention of copyright protection systems, we believe that enactment of such provisions would be sound public policy.

International: Intellectual property in the information era has global ramifications and is becoming increasingly internationalized. Through “national treatment,” international intellectual property treaties provide a foundation for a level playing field. With the clarification of section 2 that we are requesting, H.R. 2441 is compatible with our treaty responsibilities and represents a positive step forward for the creation and dissemination of works in the Global Information Infrastructure (GII). If enacted, the United States—through its trade negotiators and intellectual property experts—will have to work to have other countries accept similar treatment for copyrighted works transmitted across national borders.

Because copyright laws are territorial, and international treaties leave room for national legislative determinations, we may soon confront an era of confusion about what country's copyright law applies for transmissions from one country to another. This issue, like the liability issues, will have to await another day.

Fair use: As incorporated in the Copyright Act and as developed by the federal courts, the doctrine of fair use will no doubt apply in the digital environment. The NIIAC determined that the ability to make fair use of copyrighted works should not be diminished or weakened in the context of new technologies, and we concurred in that decision.

Libraries and the Visually Impaired: Section 3 of H.R. 2441 provides several exemptions for libraries and the visually impaired, and BMI has no objections to these provisions.

Education: Education of the public about the need to respect intellectual property rights and responsibilities will be critical to the successful development of the NII. Regretfully, copyright responsibility is rarely taught in primary and secondary schools, institutions of higher learning, or as part of the life-long learning process envisioned by the NII. This must change. BMI has committed itself to participating in the ongoing educational process.

CONCLUSION

BMI supports H.R. 2441 and stands ready to work for its expeditious enactment. We look forward to working with the Subcommittee to resolve the drafting concerns raised in this statement and any other issues that might arise.

LEGAL MEMORANDUM OF BROADCAST MUSIC, INC. ON THE NII COPYRIGHT PROTECTION ACT OF 1995 (H.R. 2441) SUBMITTED TO THE HOUSE JUDICIARY COMMITTEE, SUBCOMMITTEE ON COURTS AND INTELLECTUAL PROPERTY, WEDNESDAY, FEBRUARY 7, 1996

I. INTRODUCTION

Broadcast Music, Inc. ("BMI") is a music performing rights licensing organization. It represents over 3 million musical works created and owned by more than 180,000 affiliated songwriters, composers and publishers, as well as thousands of creators and copyright owners from countries all around the world.

BMI supports the overall thrust of the changes proposed by H.R. 2441. BMI in particular supports the proposed addition to § 106(3) to add the words "or by transmission". We understand that this proposal is intended to clarify the distribution right of copyright owners to ensure that it includes digital transmissions of copies of their works. However, to clarify the law on this point further the proposed legislation seeks to amend the definition of "Transmit" to add the following sentence: "To 'transmit' a reproduction is to distribute it by any device or process whereby a copy of (sic) phonorecord of the work is fixed beyond the place from which it was sent." As a major part of the definition of public performance depends on and incorporates the definition of "transmit," BMI is concerned that the addition of this new language to the definition of transmit could potentially confuse the courts and have negative implications for licensing as well as liability.

Specifically, if a transmission qualifies as a distribution of a reproduction within the meaning of the proposed second sentence of the definition of transmit, does that mean it is no longer a public performance under the existing first sentence of the definition? We do not believe that the drafters of the bill intended this result. Accordingly, in order to clarify this potential misinterpretation we believe that language should be added to the statute specifically to clarify and ensure that digital transmissions of musical works remain public performances under the Copyright Act, regardless of whether they are also distributions of reproductions. There is simply no reason why the existing public performing right should be diminished in order to clarify the distribution right.¹

In BMI's view, if a right of distribution by transmission is to be created, it should be defined and treated as *additional* to the right of public performance where sung or played renditions of musical works (i.e., not sheet music)—whose only function is to convey an aural experience—are digitally transmitted to the public. This interpretation would be consistent with the "bundle of rights" philosophy of the 1976 Act, under which various exclusive rights are often implicated by a single activity. Indeed the White Paper itself recognized that the exclusive reproduction right would also be implicated by certain digital distributions by transmission at the point of receipt by a recipient's computer, thereby implicating a third right. White Paper at 215.

It should not be Congress's intent, to diminish the scope of the public performance right as it currently applies to compressed digital transmissions. We set out below our analysis of why digital transmissions of played or sung music are already protected by the existing U.S. right of public performance and under the Berne Convention.

II. LEGAL ANALYSIS OF THE NII COPYRIGHT PROTECTION ACT OF 1995 AND THE PUBLIC PERFORMING RIGHT

A. *The Copyright Act currently protects transmissions of musical works as public performances*

The right of public performance of musical works is created by 17 U.S.C. § 106(4) (1992), which reads as follows: "Subject to sections 107 through 118, the owner of copyright under this title has the exclusive rights to do and to authorize any of the following: (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly . . ."

¹ Representatives of the Patent and Trademark Office have assured BMI that it is not the intent of the White Paper to narrow the existing public performance right. Furthermore, although the White Paper contains statements that transmissions that are not heard in real time (i.e., simultaneously with their transmission) are to be considered distributions, not public performances (e.g. White Paper at pp. 71 and 214 n. 536), PTO representatives have assured us that this language in the White Paper was not intended to eliminate the right of public performance for the compressed digital transmission of a radio or television program which could be heard or seen at a later time.

The Copyright Act states that "[t]o perform . . . a work 'publicly' means—" (1) to perform or display it at a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered; or (2) to transmit or otherwise communicate a performance or display of the work to a place specified by clause (1) or to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.

17 U.S.C. § 101 (definition of "perform publicly"). And, although the Act does not define "performance," it does say that: "To 'perform' a work means to recite, render, play, dance, or act it, either directly or by means of any device or process or, in the case of a motion picture or other audiovisual work, to show its images in any sequence or to make the sounds accompanying it audible." *Id.* (definition of "perform"). Finally, the statute says that:

"A 'device,' 'machine,' or 'process' is one now known or later developed." *Id.*

The right of public performance of a copyrighted work is one of the six exclusive rights granted by the Act. The other rights are those of reproduction, adaptation, distribution, display and public performance of a sound recording by digital transmission. 17 U.S.C. § 106(1)–(6). These rights exist concurrently with and independently of one another; they are not mutually exclusive. Rather, "[t]hese exclusive rights, which comprise the so-called 'bundle of rights' that is a copyright, are cumulative and may overlap in some cases." H.R. Rep. No. 1476, 94th Cong., 2d Sess. 61 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5674. Thus, although downloading of digitally transmitted music onto DAT or CD or, for that matter, the reproduction in any tangible medium of any transmitted music is considered copying under the Act, the initial transmission of the musical work, so long as it meets the statutory requirements, is nonetheless a public performance.

Clause (2) of the definition of "perform publicly" above, is the "transmit" clause. This is the section most relevant to the analysis regarding digital transmission of musical works in the context of the NII. In order for the performance right to be invoked, a musical work must be "transmitted" and that transmission must be "to the public" within the meaning of the Act.

The current statute states that to "'transmit' a performance . . . is to communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent." 17 U.S.C. § 101 (definition of "transmit"). Until the recent enactment of the Digital Performance Right in Sound Recordings Act of 1995 ("the 1995 Act"), the Act did not mention digital or other computer technology by name when discussing transmitted public performances. However, the 1976 Act on its face and in legislative history clearly covered digital transmissions as public performances. Most significantly, the Act expressly stated that the "devices" and "processes" by which a performance can be "transmitted" within the meaning of the Act include those "now known or later developed." *Id.* The novelty of digital transmissions or of the NII itself is thus irrelevant to the statutory analysis.

In crafting the 1976 Act Congress—acting through this Subcommittee—was aware of the rapid onset of new technologies, such as the computer, that would affect copyright. Congress decided to draft the performing right broadly rather than try to legislate specifically for every possibility. Congress took this broad approach to technology in drafting its definition of "transmit." The House Report stated that the devices by which a public performance could be transmitted could include "any sort of transmitting apparatus, any type of electronic retrieval system, and any other techniques and systems not yet in use or even invented." H.R. Rep. No. 1476, 94th Cong. 2d Sess. 63 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5677. The legislative history bears out that transmission of a musical work by means of new technology is clearly a transmission within the meaning of the Act.

Under the existing 1976 Act the fact that transmissions of a sung or played musical work will not be heard simultaneously does not mean that they are not public performances. Digital transmissions, whether audible or viewable in "real time" or only after being downloaded, are functionally equivalent to current satellite and terrestrial broadcasting and cable transmissions. It is self-evident that a radio or television broadcast is available to a substantial number of people and thus "public." And the legislative history of the 1976 Act so states. H.R. Rep. No. 1476, 94th Cong., 2d Sess. 64 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5678. Congress stated with equal clarity that a transmission is also considered public "whenever the potential recipients of the transmission represent a limited segment of the public, such as the occupants of hotel rooms or the subscribers of a cable television service." *Id.* at 5678. Once the transmission is *available* to the public, there is no requirement that it, in fact, be heard by an audience: "[A] performance made available by transmission to the public at large is 'public' even though the recipients are not

gathered in a single place, and even if there is no proof that any of the potential recipients of the transmission was operating his receiving apparatus at the time of the transmission." *Id.*

Besides allowing audiences of publicly transmitted performances to be geographically dispersed, the Copyright Act also allows the audience to be "chronologically dispersed." 2 *Nimmer* § 8.14[C] at 8-174. The Act states that the recipients of a publicly transmitted performance may receive the performance "at the same time or at different times." 17 U.S.C. § 101 (definition of "publicly"). Thus, there is no requirement that more than one person listen to, or even be able to listen to, the performed work simultaneously with its performance.

Nevertheless it has been argued that the sending of a digitized form of a work does not constitute the "play[ing]" or "rendering of the work referred to in the statutory definition of "perform"² until and unless the digital information is reconverted into sounds or images that are audible or visible. If a digital transmission is not made audible at a listener's home until after it is received, electronically stored, and then called for by the listener, the subsequent playing of a song ("performance") would be private and not the public performance that would be involved if the original transmission were made audible at the time of transmission.

The flaw in this argument is that if it applied to digital transmissions it could equally apply to the analog radio and television broadcasts which were so clearly meant to be covered by the exclusive right to perform publicly. After all, standard radio broadcasts are also not audible by the human ear until the radio waves received by the antenna are reconverted by the radio receiving set. Moreover, conventional analog radio equipment is fully capable of receiving radio signals and recording them on tape even if the loudspeakers attached to the radio receiver are not turned on and no one is at home listening. Home taping of conventional television and radio signals is, of course, a widespread practice. The fact that on-demand transmissions might be downloaded or otherwise reconverted into audible sound at a time after the transmission has occurred would seem to be completely disposed of by the statutory statement that a transmitted performance remains "public" even if it is received "at different times" by each member of the public. 17 U.S.C. § 101. Moreover the legislative history seems to make it clear that a transmission is complete once it is sent, so long as it is *capable* of audible reception by the public.

The more precise statutory answer to this line of argument rests upon the intentionally broad formulation "by means of any device or process" contained in Section 101's definitions of "publicly" and "transmit". So long as the transmission is sent in such a way as to be eventually audible by the public, any combination of intermediate technological steps is meant to be of no account. Indeed, the statutory history clearly supports the proposition that a transmitted performance need not be initially audible, as a transmission may reach the public in "[a]ny form" and qualify as a public performance. H.R. Rep. No. 1476, 94th Cong., 2d Sess. 64 (1976), *reprinted* in 1976 U.S.C.C.A.N. 5659, 5678.

B. The Digital Performance Right in Sound Recordings Act of 1995 provides that digital transmissions are public performances

The recent passage of the Digital Performance Right in Sound Recordings Act of 1995 (the "1995 Act") supports our view that digital transmissions of musical works do not have to be heard in "real time" in order to be considered public performances under the Copyright Act. The 1995 Act itself states that nothing in the amendments to Sections 114 or 115 of the Copyright law is intended to derogate from the existing rights of the copyright owners of musical works under Section 106(4). 17 U.S.C. § 114(d)(1)(4)(B) and § 115(c)(3)(H)(ii), (K) (1995).

Moreover, the legislative history also clearly supports our interpretation of pre-existing law under the 1976 Act. House Report No. 104-274 states that "(u)nder existing principles of copyright law, the transmission or other communication to the public of a musical work constitutes a public performance of that musical work." House Rep. No. 104-274, 104th Cong., 1st Sess. at 22 (1995).

The 1995 Act also clearly anticipates that interactive digital transmissions will be considered public performances. It states that licensors who have obtained permission from the copyright owner of the sound recording to publicly perform the sound recording in an interactive transmission are still required to obtain public performance rights from the copyright owner of the musical work prior to making interactive transmissions. 17 U.S.C. § 114(d)(3)(C).

The 1995 Act provides indications of those kinds of digital transmissions which will be considered "digital phonorecord deliveries" subject to mechanical compulsory licensing requirements under amended Section 115. The definition of "digital phono-

² See White Paper at p. 71.

record delivery" expressly excludes real-time, noninteractive subscription transmission of a sound recording where no reproduction of the sound recording or the musical work embodied therein is made from the inception of the transmission through to its receipt by the transmission recipient in order to make the sound recording audible. 17 U.S.C. § 115(d). Thus, Congress saw fit to make clear that transmissions that are audible in real time without intermediary copying are public performances, but are not digital phonorecord deliveries.

The 1995 Act further specifies that regarding the establishment of appropriate licensing fees for digital phonorecord deliveries, a distinction must be made between "general" digital phonorecord deliveries and "incidental" digital phonorecord deliveries. The Senate Report describes an "incidental" digital phonorecord delivery as follows: A transmission results in an incidental digital phonorecord delivery if it is "designed to allow transmission recipients to hear sound recordings substantially at the time of transmission, but the sound recording was transmitted in a high-speed burst of data and stored in a computer memory for prompt playback (such storage being technically the making of a phonorecord), and the transmission recipient could not retain the phonorecord for playback on subsequent occasions (or for any other purpose)." 1995 U.S.C.C.A.N. at 386.

Congress clearly anticipated that there would be "means, devices or processes" for publicly performing musical works by digital transmission that require intermediary copying as a technical necessity. In view of this, downloaded digital transmissions, or other compressed transmissions that are by definition transmissions which fall under the rubric of the public performance right may also be distributions of reproductions within the meaning of the 1995 Act.

This is especially so where the transmission is "designed to allow transmission recipients to hear sound recordings substantially at the time of transmission, but the sound recording was [for technical reasons] transmitted in a high-speed burst of data. . . ." *Id.* The 1995 Act clearly states that a digital transmission can constitute a digital phonorecord delivery "regardless of whether the digital transmission is also a public performance . . . of any musical work . . ." 17 U.S.C. § 115(d).

C. Existing case law supports our interpretation of the act

Although no cases have specifically dealt with whether on-demand, digitally transmitted music is a transmission within the meaning of the Act as it stands, the courts have been faithful to the legislative intent that the "transmit" clause of the definition of "publicly" in the Act be interpreted broadly. "A defendant . . . is not immune from liability for copyright infringement simply because the technologies are of recent origin or are being applied to innovative uses." *Columbia Pictures Industries, Inc. v. Redd Horne, Inc.*, 749 F.2d 154, 157 (3d Cir. 1984) (holding that defendants' exhibition of videocassettes in a private viewing booth constitutes public performance). The Southern District of New York similarly held that "in recognition of rapid technological developments in the copyright area, courts have interpreted the Copyright Act flexibly to reduce the need for frequent Congressional amendments." *David v. Showtime/The Movie Channel, Inc.* 697 F. Supp. 752, 759 (S.D.N.Y. 1988).

In *Playboy Enterprises, Inc. v. Frena*, 839 F. Supp. 1552, 1557 (M.D. Fla. 1993), the defendant's computer bulletin board service allowed its customers to upload and download digital copies of copyrighted photographs by means of digital transmissions by the customers' computers and modems. The court found infringement of the plaintiff's right of public display of its photographs. The public display right accorded to copyright owners of visual art is parallel to the public performing right accorded to holders of copyright in musical works. See 17 U.S.C. § 106(5).

The court followed the clear legislative intent to apply the Act's "transmit" clause to new technology and held that the Act "precludes unauthorized transmission of the display from one place to another, for example, by a computer system." *Frena* at 1557. We believe the *Frena* decision supports a finding that a downloaded, compressed transmission constitutes a public performance of a snug or played musical work notwithstanding the fact that the work is not audible or viewable until after the recipient of the transmission receives it.

There are other examples of transmissions that are not audible or viewable but are nevertheless public performances. For example, although specifically exempted by § 111 of the Act from liability for copyright infringement, a passive secondary carrier performs publicly when it picks up a television transmission from an initial transmitter (such as a superstation) and in turn transmits the signal to a cable system that then transmits directly to the public. And this is so despite the fact that the secondary transmission signal never becomes audible or visible to any listener or viewer at all. The performance is not seen or heard until the cable operator transmits it a third time to its selected paying customers. Indeed, the statutory exemp-

tion for passive secondary carriers would not be necessary if the inaudibility of their transmissions meant they were not publicly performing. *WGN Continental Broadcasting Co. v. United Video, Inc.*, 693 F. 2d 622, 625 (7th Cir. 1982); see also *Hubbard Broadcasting, Inc. v. Southern Satellite Systems, Inc.*, 593 F. Supp. 808, 813 (D. Minn. 1984) (stating that "under the broad definitions found in § 101 of the Copyright Act, a transmission is a public performance whether the transmitter originates, concludes, or simply carries the signal") *aff'd*, 777 F.2d 393 (8th Cir. 1985), *cert. denied*, 479 U.S. 1005 (1986).

The court in *Hubbard* understood and upheld this principle by specifically refusing to excuse from copyright liability an intermediate carrier of a television signal. 593 F. Supp. at 813. Although the defendant intermediate carrier picked up an inaudible television signal and retransmitted it to another carrier without the defendant's intermediate transmission ever being made audible, the court deemed the transmission to be a public performance and thus susceptible to copyright laws covering public performance. *Id.* See also *David v. Showtime/The Movie Channel, Inc.*, 697 F. Supp. 752 (S.D.N.Y. 1988) (holding that cable programmers had publicly performed musical works by transmitting them to cable systems, even though those transmissions were not seen or heard until they were retransmitted to cable system, subscribers).

Under this reasoning, the time at which digitally transmitted music becomes audible is of no relevance to an inquiry into whether that transmission is a public performance. Because the downloaded or compressed digital transmissions we have hypothesized, whether conveyed by radio waves or wire, would be transmissions within the meaning of the Act, and because they would be available to the public, they are public performances as intended by the Act.

Clearly, the Act, its history, and relevant case law all overwhelmingly support the inclusion of digital, transmissions within the Act's definition of "transmission," and hence "performance."

D. NII transmissions and the Berne Convention

Article 11 of the Berne Convention for the Protection of Literary and Artistic Works provides that "authors of dramatic, dramatico-musical and musical works shall enjoy the exclusive right of authorizing: "(1) the public performance of their works, including such public performance by *any means or process*; "(2) any communication to the public of the performance of their works." (emphasis added) The Guide to the Berne Convention indicates that the broad language in Article 11 covers performances by all means of recording (discs, cassettes, tapes, videogames, and so forth) and there is no reason to believe that it would not cover NII transmissions, since all public communications other than broadcasting are covered.

If the new distribution by transmission right does not expressly co-exist with the public performing right, the NII legislation may undercut or violate Article 11. Congress should take a firm position that the domestic legislation it recommends would not conflict with Berne standards. Furthermore, since the Agreement on Trade-Related Aspects of Intellectual Property under the General Agreement on Tariffs and Trade, recently incorporated the standards of the Berne Convention, this is an issue of major importance to international trade.

If the proposed amendment to the definition of "transmit" does indeed conflict with our Berne responsibilities, this is another compelling reason the Congress should clarify this legislation. The problems that would arise from (1) a Berne violation, (2) attendant claims by foreign countries that they not provide Americans with national treatment, and (3) GATT TRIPs negotiation difficulties would be substantial indeed.

Respectfully submitted,

MARVIN L. BERENSON,
Senior Vice President and General Counsel.

Mr. MOORHEAD. Thank you. Mr. Murphy.

STATEMENT OF EDWARD M. MURPHY, PRESIDENT AND CEO, NATIONAL MUSIC PUBLISHERS' ASSOCIATION, INC.

Mr. MURPHY. Good afternoon, Mr. Chairman, and members of the subcommittee. My name is Edward M. Murphy, president, chief executive officer of the National Music Publishers' Association. It is my pleasure to appear before you to express NMPA's support for H.R. 2441, the NII Copyright Protection Act of 1995, and to thank

you, Mr. Chairman and Mrs. Schroeder, for your leadership in this important area.

NMPA represents more than 600 American music publishers. Its subsidiary, the Harry Fox Agency, represents more than 14,000. HFA serves the industry by licensing uses of music in the United States on records, tapes, CD's, and in response to the technological advances for online delivery.

Music copyrights, like all copyrights, have always been intangible property. H.R. 2441 is a modest measure that will ensure that copyrighted works are adequately protected, whether they are in the tangible or the intangible form.

This afternoon I would like to address the provisions of H.R. 2441 and briefly highlight recent legislative legal and licensing initiatives in which NMPA has participated, because they relate directly to the need for and appropriateness of this legislation.

Last year, Mr. Chairman, your superb leadership made possible enactment of the Digital Performance Right in Sound Recordings Act. The 1995 law marked the first time Congress responded to the need for creators and copyright owners to maintain adequate control over uses of their works in the online environment. And it provides a significant and useful precedent in support of H.R. 2441's clarification that a distribution right in section 106(3) of the Copyright Act extends to distribution by transmission.

Just as any means of exploitation—such as public performance, the making and distribution of copies and phonorecords and the creation of a derivative works—are possible and subject to copyright owners' control in the real world, various uses are possible and should be subject to copyright owners' control in the virtual world of computer networks.

In 1995, the sound recordings law recognized this. It both established an exclusive right of sound recording copyright owners to control the public performance of their works over interactive services, and made clear that phonorecords can be distributed via such services. The digital phonorecord delivery provisions of the sound recordings law helped lead music publishers and a prominent online service out of the courtroom and into the marketplace.

Clarification of our legal rights contributed to our ability to work out details of a licensing system that would allow us to treat online transactions as a business opportunity, and give service subscribers the ability to make authorized uses of thousands of musical works on reasonable terms and with a low per-transaction cost.

H.R. 2441's clarification of the distribution right to cover distribution by transmission does no more than establish the same level of clarity in the law for rights of owners and users of all copyrighted works. H.R. 2441 also includes two provisions that will promote the ability of copyright owners to identify and authorize uses of their works.

First, the bill would make it unlawful to remove, alter or provide false copyright management information. Copyright management information—codes, software, or other information identifying a work, its author or rights owner, and terms and conditions for use—will serve as a label or a "license plate" as works travel the information superhighway. It can promote the understanding of the copyright. It can assist network users in identifying published do-

main materials. It can greatly facilitate the licensing of protected works on reasonable terms and reduce individual transaction costs. And ultimately it can foster compliance with the law. But copyright management information can only serve those important purposes if the integrity of the information itself is protected.

Copyright owners, including music publishers and other interested parties, are working to develop and to implement appropriate copyright management systems. H.R. 2441 will encourage these useful efforts to continue and, of equal importance, will protect the public from false information.

Second, H.R. 2441 prohibits the sale of devices or offering of services of primary purpose or effect of which is to defeat technological measures employed by the copyright owner to protect his or her products. The concept underlying the prohibition is simple. It acknowledges that copyright owners, like other property right owners, have the right to secure their property. Without the prohibition the right would be a hollow one. We would be able to secure our products, but anyone else could come along and break through that security and enable others to do the same without any penalty. H.R. 2441 will ensure that technological protection measures are available to assist copyright owners in responding to infringement of their works over the NII.

I would like to take a few moments to talk about an issue which has been discussed here, but not addressed in the bill, the question of copyright infringement liability of online services. The commercial online services and others involved in the use of their works over networks are aggressively seeking an amendment to H.R. 2441 that will drastically alter the standards of copyright infringement liability, at least as it pertains to their activities.

The claim that copyright infringement liability threatens the viability of the online service industry has not been substantiated. In fact, the rapid expansion of the Internet and the commercial online services in and of itself would appear to defeat the claim that the current state of the law of copyright liability is chilling development of the NII.

Moreover, the online services and their allies have not explained how copyright would be enforced if the sweeping amendments they envision are enacted into law. Why should longstanding rules and theories of copyright liability be changed simply because a new technology or means of transporting protected works has emerged? If such services are exempt from the traditional liability for copyright infringement, as some have suggested, copyright owners' recourse would be severely limited to pursuit of individual network users whose identities are typically known only to the services to which they subscribe.

If an "actual knowledge" standard advocated by others is allowed to establish a safe haven from the liability for infringements, we fear the creation of an online environment in which ignorance is bliss. In our view, an actual knowledge standard would encourage commercial interests that facilitate uses of works to turn a blind eye toward the unlawful activities of services and individuals operating on or using their systems.

Infringement remedies under the Copyright Act are limited by statute to monetary awards reasonably calculated to make the

copyright owners whole and to injunctive relief. Knowledge or a lack of knowledge on the part of the infringer is factored into the sliding scale of statutory damage liability in cases of the innocent and willful infringement.

The act does not provide for punitive damages, nor does it provide for the equivalent of speculative pain and suffering damages, that some argue serve as an incentive to litigate in tort actions. The current liability regime with remedies adjusted to reflect the level of knowledge of infringement encourages responsible conduct on the part of copyright owners and those who exploit works.

H.R. 2441, as introduced, clarifies rights and responsibilities under the law and encourages the use of technologies both to identify and safeguard works. These provisions taken together will facilitate licensing and limit unauthorized access to works, thereby encouraging lawful uses and curbing infringement and the need to resort to litigation. We urge Congress to give H.R. 2441 an opportunity to work before considering any amendment of a liability threshold.

Mr. Chairman, on behalf of the board of directors and members of the National Music Publishers' Association, I thank you for the opportunity to testify here today. Thank you.

[The prepared statement of Mr. Murphy follows:]

PREPARED STATEMENT OF EDWARD P. MURPHY, PRESIDENT AND CEO, NATIONAL MUSIC PUBLISHERS' ASSOCIATION, INC.

Good afternoon, Mr. Chairman and members of the Subcommittee. My name is Edward P. Murphy, president and chief executive officer of the National Music Publishers' Association, Inc., ("NMPA").¹

It is my pleasure to appear before you to express NMPA's support for H.R. 2441, the "NII Copyright Protection Act of 1995," and to thank you, Mr. Chairman, and the bill's cosponsors for your leadership in this important area.

NMPA is a trade association representing more than 600 American music publishers—businesses that nurture the process of creating music by providing financial and artistic support for writers by promoting those writers and their songs and by generating royalty income through the issuance of copyright licenses. The association's mandate is to protect and advance the interests of music publishers and their songwriter partners in matters relating to the domestic and global protection of music copyrights.

NMPA's licensing subsidiary, The Harry Fox Agency, Inc. ("HFA"), represents more than 14,000 music publishers and licenses a large percentage of uses of music in the United States on records, tapes and CDs, and—in response to technological advances—for on-line delivery. HFA also licenses music on a worldwide basis for use in multimedia productions, films, commercials, television programs, and all other types of audio-visual applications.

The National and Global Information Infrastructures ("NII" and "GII," respectively) hold the future of the American music industry and its markets. Recognizing this, NMPA and HFA have been working over several years to promote a rational legal and business climate in which copyright owners, on-line services and network users can all reap the benefits afforded by amazing new communications and distribution technologies.

This afternoon, I would like to address the provisions of H.R. 2441 and briefly highlight recent legislative, legal and licensing initiatives in which NMPA has participated, because they relate directly to the need for and appropriateness of this legislation.

DISTRIBUTION BY TRANSMISSION

Last year, representatives of songwriters, music publishers and recording companies appeared before this panel to discuss issues raised by the "Digital Performance

¹ NMPA maintains its offices at 711 Third Avenue, Eighth Floor, New York, New York 10017; (phone) 212/922-3260; (fax) 212/953-2471.

Right in Sound Recordings Act of 1995.” Thanks in large measure to the leadership and support of Chairman Moorhead and of members of the Subcommittee, and measure is now law.²

The 1995 sound recordings law marked the first time that Congress addressed the implications of digital transmission and delivery systems to allow creators and copyright owners to maintain adequate control over uses of their works in the on-line environment. We believe the recent law provides a significant and useful precedent in support of one of the principal provisions of the NII legislation: clarification that the distribution right in section 106(3) of the Copyright Act extends to distribution by transmission.

Inter-industry discussions and legislative debate surrounding the sound recordings bill caused the music industry to consider whether, how and in what circumstances the various rights that exist under the copyright law can be implicated by uses in an interactive, on-line environment. We concluded that, just as many means of exploitation—such as public performance, the making and distribution of copies and phonorecords, and the creation of derivative works—are both possible and subject to the copyright owner’s control in, if you will, the “real” world, these various uses are possible and should be subject to the copyright owner’s control in the “virtual” world of computer networks.

Congress agreed. Accordingly, the sound recordings law both establishes an exclusive right of sound recording copyright owners to control public performance of their works over interactive services and *makes clear that phonorecords can be distributed via such services*. Significantly, Congress took the opportunity in the 1995 law to clarify, with regard to musical works and sound recordings, the application of both existing rights of reproduction and distribution and existing licensing mechanisms to on-line digital phonorecord delivery.

In our experience, the digital phonorecord delivery provisions of the sound recordings law helped lead music publishers and a prominent on-line service out of the courtroom and into the marketplace. (I refer to the recent settlement in *Frank Music Corp. v. CompuServe Incorporated*, which had been pending in the Southern District of New York.) Clarification of our legal rights contributed to our ability to work out details of a licensing system that allows us to treat on-line transactions as business opportunities and to welcome compensated uses of our works by service subscribers.

H.R. 2441’s amendment of section 106(3) of the Copyright Act and related definitions does no more than establish the same level of clarity in the law for rights of owners and users of all copyrighted works. The bill, if enacted, would assist rights owners in curbing unauthorized uses and promote the development and implementation of rational licensing practices.

COPYRIGHT MANAGEMENT INFORMATION

NMPA further believes that important policy interests will be served by a prohibition against the removal or alteration of copyright management information (“CMI”) and the distribution of copyright management information known to be false, as proposed in H.R. 2441.

Copyright management information—defined by the bill to include the name and other information identifying the author of the work, the name and other information identifying the copyright owner, terms and conditions for uses of the work, and other information set out in Copyright Office regulations—will serve as a label or “license plate” for a work as it travels the information superhighway. The availability of copyright management information has the potential to promote understanding of copyright, aid in the identification of public domain materials, greatly facilitate licensing of protected works on reasonable terms, reduce individual transaction costs and, ultimately, foster compliance with the law. But it can only achieve these important purposes if the integrity of the information itself is protected.

Copyright owners and the providers and transmitters of protected content are working together in various ways to develop and implement appropriate copyright management systems. Discussions have been hosted by the World Intellectual Property Organization; the Copyright Office is coordinating a pilot project to test the effectiveness of an electronic copyright management system; and any number of industries, including the music publishing community, are assessing forms and formats for CMI labels and the software for implementing them. H.R. 2441 will encourage these useful efforts to continue and, of equal importance, will serve to protect the public from false information about the protected status of a work, who created

² Pub. L. No. 104-39 (Nov. 1, 1995).

a work, who owns rights in it, and what uses may be authorized by the copyright owner.

TECHNOLOGICAL PROTECTION MEASURES

Rights under the copyright law are private rights, and the burden of enforcing those rights properly falls to the copyright owner. In the digital environment, however, the range and volume of possible uses of works renders reliance on traditional legal remedies for infringement inadequate for meaningful enforcement. Fortunately, a variety of new technologies—some in software and some in hardware—have the potential to greatly enhance the ability of copyright holders to protect themselves against unauthorized copying, distribution or modification of their works. H.R. 2441 paves the way for the effective use of such technologies by prohibiting the importation, manufacture or distribution of any device or product or the provision of any service the primary purpose or effect of which is to bypass, remove or otherwise circumvent technological protection measures, where such action is taken without the authorization of the copyright owner or the law.

The concept underlying the prohibition against unauthorized interference with technological protection measures is a simple one. It acknowledges that copyright owners—like other property owners—have the right to secure their property. Failure to enact the provision would place owners of copyrighted content in an absurd position. We would be able to lock up our product to protect it, but anyone else could come along and make a mold of the lock and sell or give away the keys to it, without penalty.

The prohibition also furthers the interest of users of works. The public will have access to more copyrighted works via the NII if copyright owners have some assurance that their works will not be subject to widespread, unauthorized copying.

The approach proposed in H.R. 2441 is a fair one. It neither requires copyright owners to employ technological protection measures, nor requires manufacturers of products to accommodate any particular protection system. It appropriately focuses on devices and services the primary purpose or effect of which is to defeat a protection system. There is precedent for such a standard in section 1002 of the Copyright Act, which pertains to digital audio recording devices, and which was developed in consultation with and supported by the consumer electronics industry.

Technological protection provisions of H.R. 2441 will ensure that authorization procedures, digital "signatures," copying controls, encryption and other technologies are available to assist copyright owners in responding to the challenges posed by the ease of distribution and reproduction of their works over the NII, and NMPA urges their enactment.

LIABILITY FOR INFRINGEMENT OF COPYRIGHT

I would like to take a few moments to talk about an issue that is not addressed in the bill: the question of copyright infringement liability for on-line services that make use or whose subscribers make use of copyrighted works without authorization.

The commercial on-line services and others in or about to enter the on-line service or Internet access markets are aggressively seeking an amendment to H.R. 2441 that would drastically alter the standard for copyright infringement liability—at least as it pertains to their activities. As we understand it, some have called for an outright exemption from liability, while others would require copyright owners to prove that the service had "actual knowledge" of the infringing activity before liability could be established. NMPA respectfully submits that the case for amendment of the current copyright infringement liability standard has not been made, and urges the Subcommittee to reject such an attempt at this time.

It is true that, under U.S. copyright law, copyright infringement is determined without regard to the intent or state of mind of the infringer. This is not to say, however, that knowledge of the infringement or a lack thereof has no significance in an infringement action, as the arguments of on-line services and others would suggest. Under current law, courts are directed to, and do, consider the "innocence" or "willfulness" of the infringer in relation to the award of statutory damages and attorneys' fees.

As Professor Nimmer's treatise explains: "Innocent intent should no more constitute a defense to an infringement action than in the case of conversion of tangible [personal property]. In each case, the injury to a property interest is worthy of redress regardless of the innocence of the defendant. Moreover, a plea of innocence in a copyright action may often be easy to claim and difficult to disprove."³

³M. Nimmer and D. Nimmer, 3 *Nimmer on Copyright* § 13.08 (1994).

The claim that copyright infringement liability threatens the vitality of the on-line service industry has not been adequately substantiated. Moreover, the on-line services and their allies have not explained how copyright will be enforced if the sweeping amendments they envision are enacted into law. If such services are exempted from traditional liability for copyright infringement, copyright owners' recourse will be severely limited to pursuit of individual network users whose identities are typically known only to the services to which they subscribe. If an "actual knowledge" standard is allowed to establish a safe-haven from liability for infringements, we fear the creation of an on-line environment in which ignorance is bliss. In our view, such a standard would encourage commercial interests that facilitate uses of works to turn a blind eye toward the unlawful activities of services and individuals operating on or using their systems.

The Copyright Act's liability chapter (chapter 5) states in plain fashion that " * * * [a]nyone who violates any of the exclusive rights of the copyright owner * * * is an infringer of copyright * * *." Remedies available under the Act are limited by statute to monetary awards reasonably calculated to make the copyright owner whole and to injunctive relief. Further, the Act provides for a sliding scale of statutory damage liability in cases of "innocent" and "willful" infringement. The Act does not provide for punitive damages, nor does it provide for the equivalent of speculative "pain and suffering" damages available in tort actions.

Congress has not addressed theories of copyright liability, and particularly not in the detail proposed by certain on-line service providers. This job has historically been left to the courts. And with good reason. Given the incredible factual variation that exists with real world litigation, and given the dizzying technological changes likely to take place in the on-line service area, the courts are best suited and should continue to play a principal role in assessing liability for copyright infringement.

The current copyright liability regime—with remedies adjusted to reflect the level of knowledge of the infringer—encourages responsible conduct on the part of copyright owners and those who exploit works. H.R. 2441, as introduced, clarifies rights and responsibilities under the law and encourages the use of technologies both to identify and safeguard works. As I discussed earlier in my testimony, these provisions, taken together, will facilitate licensing and limit unauthorized access to works, thereby encouraging lawful uses and curbing infringement and the need to resort to litigation. We urge Congress to give H.R. 2441 an opportunity to work before considering any amendment of liability thresholds.

On behalf of the Board of Directors and members of the National Music Publishers' Association, I again thank you for the opportunity to testify today.

Mr. MOORHEAD. Thank you. In many ways, this bill steps out in rather virgin territory that hasn't been covered before. We know it is a rather skeleton bill. A lot of the questions that have been raised have not been answered. We want to be sure that we get this basic legislation into law, if we can, during this session. We don't want to add so much meat to the skeleton that dies of obesity along the line. That is a possibility.

I don't know what is going to happen as it moves along. It has got a long way to go. It has to go through our subcommittee, the full committee, on the floor and the same thing in the Senate. But I do think it is an important step forward. Should this subcommittee try at this time to work out a clear solution to the extent of the liability of online service providers and the fair use question prior to moving the bill, Jack Valenti?

Mr. VALENTI. Would you mind repeating that, Mr. Chairman?

Mr. MOOREHEAD. Should this subcommittee try at this time to work out a clear solution to the extent of liability to online service providers and a fair-use question prior to moving the bill?

Mr. VALENTI. Frankly, I think that the bill is just find the way it is. The only real recommendation that I have made to this committee is to insert criminal penalties in infringement.

I think when you are moving into a future that is really a mystery wrapped in a shadow inside a paradox, you don't know what is going to happen, you shouldn't be monkeying too much with cur-

rent law. And that is why I think this bill is—has a clarity about it that I find admirable. And my recommendation is that it should go forward, but you ought to seriously consider, if you are really going to stop violations, there must be imposed some kind of criminal penalty or otherwise. As I said, our experience has found it is sort of like dry leaves in the wind, it doesn't really work without criminal penalties.

Mr. MOORHEAD. Ms. Preston.

Ms. PRESTON. I think that the bill in its present form, except for one modification that I presented to you, is adequate at this time. I think that the rules of the highway should be clear, that there be no gray areas.

As I said, in the future an awful lot will have to be left up to the marketplace and probably to litigation to resolve some of these issues.

Mr. MOORHEAD. Mr. Murphy.

Mr. MURPHY. I would agree with my fellow colleagues and panelists here, that there be no changes, I think, at this time, Mr. Chairman. The NII report itself was a very comprehensive study, which, of course, made the recommendations that are the basis for the bill. A lot of debate, a lot of discussion, has already gone on.

I might just add that sometimes we try to follow some technologies that don't mature and things don't quite happen the way we predict. And I think we have to be careful not to again legislate things before we understand fully the implications of how they may be used beyond that we really already know.

So I think it would be prudent for us to just move on things that we certainly have seen and caused us some problems, but not go beyond that until we have a clear understanding on how this whole, not just nationally, but internationally, how this bill is going to evolve. Because certainly it is evolving outside of our domain in Europe. A great deal of discussion, great deal of controversy exists and they too have to come to grips with these problems. We don't live in a vacuum.

Particularly on this liability issue, we have problems with people, of course, easily penetrating or sending products into this country via servers that are located off-shore. How will we be evaluating that as a liability issue? So I think, for the moment, I would be very happy to reset on the U.S. law as it presently stands for safety and protection until we understand better what is happening here and abroad.

Mr. MOORHEAD. Some argue that the passage of this legislation could delay or prevent emergence of new technologies which add value to digital information by increasing copyright owners' effective control over data resources. How would you respond to this argument?

Mr. MURPHY. Don't see that any thing that we proposed here is going to limit that progress whatsoever. Again, the explosiveness of the entire business, it just seems to be every moment, every day.

Mr. MOORHEAD. We are getting those comments constantly.

Mr. MURPHY. Yes.

Ms. PRESTON. The present restrictions haven't limited television or haven't limited radio. And as I read the other day, more and

more people are turning from television to browsing on the Internet, and I can't see that there is any difference. I can't see where it would stand in the way at all.

Mr. MOORHEAD. Mr. Valenti.

Mr. VALENTI. Mr. Chairman, I don't think it is going to prevent any new technology, all you are doing is putting a sheriff into Dodge City, and I think that is time enough to do that. But it is not going to in any way baffle any new technology, not at all.

Mr. MOORHEAD. How will clarifying protection in the digital network environment help small businesses to start up companies? Do you think there is a danger that these changes will mostly help large companies and not the small ones?

Who wants to tackle that one?

Ms. PRESTON. I don't think it is going to harm the small companies, just as it didn't harm a small radio station when it started out or it didn't harm a small television station when it started out. There are costs and they are adjusted to the size of the user.

Mr. MOORHEAD. My 5 minutes are up.

I recognize the gentlelady from Colorado.

Mrs. SCHROEDER. Thank you, Mr. Chairman.

And since all of our witnesses came in under the green light, this is very intimidating because I have trouble ordering a cheese sandwich in 5 minutes.

But let me say one of the things I am concerned about is, there is starting to be a rumble out there creating tremendous suspicions about the white paper that initiated this bill. And yesterday we received some E-mail from Smoky Hill High School students out in Colorado, with the following comments, which means that it has really gotten out there, and I think we have to take this very seriously.

They said that they felt that the new copyright laws that were proposed in this bill would be impossible to enforce, that the only way you could enforce copyright laws on the internet would be by monitoring personal messages, a total violation of privacy. Big Brother would be watching the internet and all its messages 24 hours a day.

How would you respond to that? I worry with out fast communications, if people start thinking that is what this bill means, we can have real trouble.

Any body.

Mr. VALENTI. Well, first, if you got an E-mail from anybody in Colorado, it is damned important; I know that.

Mrs. SCHROEDER. You got that right.

Mr. VALENTI. My own feeling is that that is not so. We are dealing with squirming eels and we have never dealt with them before. This is kind of like Lewis and Clark setting out not knowing what is beyond the next river or into the next forest. This is the first tentative step taken by this Congress dealing with a phenomenon that we have never encountered before.

And I think Congressman Bono was absolutely correct when he said this is of massive importance because it is so new, it is so gargantuan and we just don't know where it will go.

But unless you begin now, Congresswoman Schroeder, to try to lay down with a delicate hand so far some rules of the game, we are going to be in deep trouble.

And I would suggest to answer to your young people in Colorado, that the only way they are going to get fine intellectual property that someone creates from their brain pan, is to make sure it can be protected. Because the worst thing that could happen to those young people is that the violations are so rife and so relentless, that creativity itself begins to shrink and wither and vanish, and that, to me, would be calamity for your young E-mail writers in Colorado.

Mrs. SCHROEDER. Yes, Mr. Murphy.

Mr. MURPHY. Yes, I think there may be a separation, in some part, between what is posted on bulletin boards, which is available on sort of a "party-line" that everybody can read. And I think that there needs to be in some way a distinction between what is already public knowledge on some sort of a party-line, as opposed to what might be encrypted and kept private, sort of like a sealed envelope as opposed to a postcard. And if you are concerned about what you write on a postcard, I think you should be, because everybody can read it, including the mailman who delivers it, so I think that is one aspect.

The other aspect, of course, with music, is that what we are primarily concerned with is massive uses, pirated uses of musical works. And I think that might be different than from a concern about what people may or may not be able to say on the Internet. So in terms of musical compositions, it is very easy to identify what is musical, you know, which works are being used. I think that they would have the freedom to do certain things, private things, they may want to do. But when it comes to music, we can identify it.

And I think what Jack said about it is absolutely correct, about the creative process. We know for sure, absolutely for sure, that the songwriters who we do business with, if they are not compensated, they cannot continue to do what they do. So the lack of product and lack of information, and the lack of music will certainly be felt.

Mrs. SCHROEDER. I met a mailman once in a small town who said it was so difficult to go to parties because he could never remember what he had read and what he had heard. So I hear exactly what you are saying.

Ms. Preston, do you have anything you wanted to add or—

Ms. PRESTON. I know I agree with both my colleagues here.

Mrs. SCHROEDER. I guess my other quick question is on line services. They appear to me to be very robust and proliferating, not at all chilled by the uncertainties in the developing case law about their liability. Yet there are folks saying that we will chill or freeze them in place if this liability issue is not addressed in this bill. Again, I think it is important to restate what the liability is now.

Mr. VALENTI. Well—I think one thing that should be understood is, I have been told—I don't like to speak, go behind any man's back, but two gentlemen sitting behind me are lawyers and I—they have told me, and I do in part believe what they have said—that innocent people are not going to be punished.

Mrs. SCHROEDER. You said innocent and the lights went out.

Mr. VALENTI. You see lawyers are everywhere.

Mrs. SCHROEDER. Wow.

Mr. VALENTI. They are even manning the fuse boxes now. The innocent aren't going to be punished. I think if you look over the court records to this hour, and I know that Congressman Boucher is far more expert on this than I am, for goodness sakes, you will find that unless an on-line provider deliberately engages in an infringement activity or is aware of the activity, that is the only problem he has, innocent online providers aren't going to be punished, and I think the record of the courts show that right now. I think that what has to be understood is though—as President Johnson used to say: If not this, what?

Who is going to be responsible? Then you will have an era of irresponsibility. And I think that kind of seismic communication, telecommunication anarchy is simply unacceptable.

But let's take this thing slowly instead of passing exemptions also now, where you don't even know the dimension of the highway. And by the way, I am not speaking in a kind of partisan tone, everyone of the companies I represent is deeply involved right now with one online provider or another, and that proliferation will grow. All we are suggesting is do not leap to unnecessary action which will provide you with unintended consequences that won't be near as congenial as you hope they would be.

Mrs. SCHROEDER. Mr. Murphy.

Mr. MURPHY. Yes, I would just like to add in something before mentioned about the small businesses and how they might react. I think copyright management information, different measurements of tracking, that will be provided for in the bill—I think are extremely important to small as well as large business, but, particularly to small businessmen. Because to know that if they are able to attract less liability, that may reduce concerns that they may have about breaching some sort of liability. They may not have the financing to go through a legal, protracted, expensive lawsuit that may occur. It would be very, very useful to know through copyright management information what is acceptable, whose products are being used, and thereby stay out of a problem, not create a problem. Because when ambiguity comes up, that is where the cost of lawyers comes in, that is where courts are going to come in, and to a small business person, that can be the death of them.

So I think it is extremely important to put the value of copyright management information into perspective. Large companies may have the resources to do a protracted battle and finally work it all out in meetings, upon meetings, upon meetings. But that small business person, he needs to know where he stands, can he get in, can he get out, what is his liability, what is he responsible for, how much does it cost him? I think that is important.

Mrs. SCHROEDER. Thank you, Mr. Chairman.

Mr. MOORHEAD. Gentleman from California, Mr. Bono.

Mr. BONO. Thank you, Mr. Chairman.

Mr. Valenti, do you think the courts are sophisticated enough to handle the copyright issues and understand them and make evaluations that they have to make?

Mr. VALENTI. Well, I never want to be pejorative about a court that I might be in one day, so I have—I think so, I think courts

handle enormously complex issues today. That is what the judiciary has been architected for. So I think the answer is yes.

Mr. BONO. Why can't a group just get insurance to protect themselves? Why couldn't a group get together to get insurance to protect themselves from—

Mr. VALENTI. Well, I know in the motion picture business, we bond people. If you are the treasurer or the CFO of an organization, you are usually under bond. Again, I don't know the business that well, but I see no reason why you can take out insurance on almost everything, why you can't take out insurance on—an infringement that you should have been aware of and the courts hold you liable. Then you have insurance to take care of it. It is cost of doing business. But I think it will be a minor cost simply because the likelihood of that happening, so far as the court records show, is almost nil.

Mr. BONO. But the superhighway is pretty new. And like you said, that it is—it is just a beginning, you know, and what can come, we have no idea. And surely people will get more and more creative with this superhighway. And I have the same concerns that you have, and it bothers me that we are putting out a product that—that has no responsibility. So when you take your industry, or music, or any of the intellectual property industries, there is—in my view, a tremendous liability there. And so I appreciate the chairman trying to protect copyrights, but I don't see this bill as—in its present form, as a completion of protection for intellectual property.

Do you feel that way?

Mr. VALENTI. Well, Congressman Bono, that is one of the reasons why I suggested that we insert criminal penalties for the—that are a raid against the development of technologies that circumvent, that circumvent, copyright protection. And that is one thing I think you really do need. And, by the way, that is not any precedential. Cable theft has criminal penalties, satellite theft has criminal penalties. I don't know why that in cyberspace there shouldn't be the same kind of criminal penalties that all other deliveries of intellectual property have to adhere to today.

I am just suggesting, Congressman Bono, and I share the chairman's thoughts that you want to get a bill that is the—maybe it is not a giant step for mankind, but it is a first step in this unexplored territory, the mapping is quite indistinct, and you need to get this bill going. That is why I am urging very little change in this bill, only where I think it is absolutely, positively and indispensably required, and that is on criminal penalties for circumvention of technologies.

Mr. BONO. So there were three recommended changes that you submitted for this bill; is that correct?

Mr. VALENTI. Correct.

Mr. BONO. Can I get your opinion as well on the—the apparent lack of responsibility, who—who is or isn't responsible for the product that gets the exposure that it is going to get when it gets on the superhighway?

Ms. PRESTON. Well, I think this bill goes a long way in trying to protect the property that is going to be transmitted, on the information superhighway. To put too many things in the bill right now

would be wrong. We don't know where technology is really going. As you say, it is just a phenomenon out there; we are yet to see the results of how far it will go. So I think that laws are going to have to be made as we get further into this new technology. But we certainly do have to have some rules of the roadway.

Mr. BONO. Are you content to let it go out as it is and then see what—what you get hit with and then deal with it at that point, or are there—

Ms. PRESTON. I am content with what the three of us are trying to do today to finalize this bill somewhat. But I do admit that we will have to make, as the marketplace directs later on, a lot of changes.

Mr. BONO. Can I ask you, Mr. Murphy?

Mr. MURPHY. Yes, I would concur.

We are content the way the bill is. I think Jack's recommendations are good ones, but I think what we all want is to have the bill move out because we certainly know technology changes by the minute. I keep learning more and more about all sorts of add-ons to the Net and how it is operating and who is in it, Business Net and all kinds of things. So there is lots going on, and I think we should move as fast as we can.

Mr. BONO. I know my time is up. One quick final question.

So do you all agree that you think we should add Jack's recommendations to the current bill now or we should wait for what is coming down the road?

Ms. PRESTON. I go along with Jack's recommendation.

Mr. MURPHY. Sure, I would, yes.

Mr. VALENTI. And I go along with it, too.

Mr. BONO. Thank you, Mr. Chairman.

Mr. MOORHEAD. Gentleman from Virginia, Mr. Boucher.

Mr. BOUCHER. Thank you, Mr. Chairman.

Mr. Valenti, as usual, your testimony today is compelling, and I would like to join with the others in welcoming you here, along with Ms. Preston and Mr. Murphy.

Mr. Valenti, let me ask you a couple of questions about the view of your industry and your personal view concerning the online liability issue.

Your lawyers are good ones and they have correctly informed you that in the relatively few cases that have been decided to date that determine the liability of the online service community, that liability has not been imposed in any circumstance where the online service provider did not either directly participate or have actual knowledge of the infringement. So one of those two standards has had to be met in the cases decided to date, either direct participation by the online service provider or actual knowledge on the part of the provider that the infringement is occurring.

Now, there have been relatively few cases, and one of the main reasons for that, in fact, the principal reason is that the technology is relatively new. We haven't had the Internet in wide, popular usage for very long, we haven't had a large number of bulletin-board services for very long, and so there has not been a substantial volume of litigation to test those theories of liability as of the present time. But you correctly state that in those few cases, those

are the standards that have been applied and those are the results reached.

I was particularly pleased by the statement that you have in your prepared testimony that says there is no immanent threat of debilitating damages against innocent online service providers. And the reason you say that is because of these twin standards of either having to have actual knowledge or having had to directly participate in the infringement.

The problem we face is that the courts have been struggling not to impose direct infringement liability on the service providers. The Net Concord in particular, and that is the most recent statement we have on the subject, struggled not to impose that direct liability. And direct liability, I would stress, does not require knowledge as a standard.

The court went to great lengths to say that knowledge is not required, but it said that some sort of volition or causation should be required, and the court essentially invented those terms and then applied that invented standard to the facts of the case and said that based upon that analysis, there would be no imposition of direct liability in that particular case. It was a somewhat tortured analysis and, in a sense, an artificial result.

And my concern, Mr. Valenti, is that if we don't provide statutory clarification it is not going to be very long until a court faced with a similar circumstance is going to disagree and is going to find that direct liability pertains whether or not knowledge is present on the part of the online service provider, and then, to use your words, the innocent online service providers would be found liable and be at risk.

So my question to you is this: In view of these facts, since what we are basically doing for the content providers here is providing a statutory codification, we are codifying the case law saying that the dissemination by electronic transmission of a digital item of copyrighted material is a distribution for copyright purposes, that is a codification, why don't we simply codify what has occurred in case law to this point and employ the very principles you have discussed in your testimony, and that is that there has to be either direct participation or that there has to be or—or that there has to be actual knowledge on the part of the online service provider—why don't we simply codify the case law for them as well?

Mr. VALENTI. That is a reasonable question, Mr. Boucher, I will do my best to give you a reasonable answer.

Answer No. 1, as you, yourself, say there is very little case law, it is slowly being developed the way most traditions in this country of common law and the word due process and the Constitution or the reasonable man doctrine, all developed under case law. I think it is very wise when there is so little court evidence on this, but so far it has certainly been in favor of the online provider. Let that case law develop over the next year or so, so we see what the boundaries are and whether there is leakage that seems to cry out for attention.

The second thing is, though, Mr. Boucher, that causes me, gives me more than a Maalox moment, is the following: If we codify it and say exempt all online providers, before we really know the direction, the dimensions, the velocity, and the composition of this

onslaught into the future, who is responsible? I go back to what Congressman Bono said again and what Congressman Moorhead said about, who protects?

You would then send us out into the cyberspace cold, stripped of all our protective armor, we wouldn't have anything left, how would we protect them? There must be some kind of architecture here that allows a court to make a decision of what may be at this time a little murky, but that is what courts are for, to develop this kind of law.

That is my long circuitous answer.

Mr. BOUCHER. Well, thank you for your answer. Your position is very clear and I understand it.

I would answer your question by saying that your protection would come by notifying the service provider that infringing material is contained on the bulletin board or is otherwise being disseminated electronically. And upon the receipt of that notice then that electronic service provider would then have the obligation under the proposal that I am making to you to disable the infringement and to terminate the infringement. That is where your protection would come.

One further question—and I am infringing on the committee time, but I need to ask this.

Mr. Goodlatte made a very useful suggestion that this subcommittee serve as a forum for discussions between the content provider community and the electronic community with respect to the question of online service provider liability; that is a proposal that I would strongly endorse. And I would like to have your response to that recommendation as well, and I hope that you would endorse it, too.

Mr. VALENTI. Not only did I endorse it, Mr. Boucher, but we are at this moment engaged in it. We are trying to determine in conferences now that my general counsel, Mr. Attaway is involved in, in sitting down, as reasonable people, to try to find out what is on the other side of the brick wall.

Mr. BOUCHER. The problem, Mr. Valenti, is that those discussions are still only at the conceptual stage. I had a briefing by many of the parties involved, and the difficulty is it is very difficult, quite candidly spoken, to get the content owner community to reduce its thoughts to more specific terms. And I have the very clear sense that those discussions are not intended to reach a rapid result, that they are intended to reach a much longer-term result, perhaps sometime in the next Congress. And what Mr. Goodlatte is proposing is that we reach a near-term result and involve the subcommittee very directly in those discussions with that goal in mind, and I trust you would endorse that as well.

Mr. VALENTI. No, I would not, Mr. Boucher, with all due respect. I have to tell you that what we want to avoid at all costs is delay. We have just seen our Government come to a bleak and lamentable halt because of people being at each end of the extreme and not being able to reach the center.

I can tell you this, I have been around this town long enough to know that the more you try to deal with people who are in the business together, and I have been in on countless negotiations, it is better for you to find these solutions. Now, sometimes it is tortu-

ous because at the beginning each person has a fixed position and now you have got to bring people together. I don't have to tell you, Mr. Boucher, that that is not easy and it may take some time, but that is going to continue on.

What I think this committee ought not do is wait and wait. Therefore, whoever wants to hold this bill hostage can refuse to come to a conclusion.

Mr. BOUCHER. Mr. Valenti, I have already offered you what I think actually will close the deal, and that is to codify the very principles that you espoused in your testimony, I don't see what delay is involved in that. And I will have to say that I am very sorry that at this point you are not willing to endorse a full process to reach a conclusion.

Thank you very much, Mr. Chairman.

Mr. MOORHEAD. The gentleman from Virginia, Mr. Goodlatte.

Mr. GOODLATTE. Thank you, Mr. Chairman.

And I thank Congressman Boucher for his endorsement of my proposal.

I want to make sure I understand what it is. And that is—that we not allow this issue to delay this legislation, but that we proceed post haste to address that issue separately with either the establishment of a commission with a short time frame to report back to us with recommendations, or with the committee's participation, in efforts to push the parties to negotiate their own agreement. Is that what you understand my proposal to be?

Mr. BOUCHER. Well said, Mr. Goodlatte.

Mr. GOODLATTE. Let me put it back to Mr. Valenti then.

Mr. VALENTI. Let me say what my understanding of the proposal is. Are you saying that this bill should not move forward until there is a—there is some kind of a formal and definitive agreement?

Mr. GOODLATTE. No. I am saying this bill should move forward without addressing that issue but with a separate but prompt timetable to address that issue. And we will come back and—if it is appropriate, and I suspect it will be appropriate—to deal with that in separate legislation in the very near future.

Mr. VALENTI. I certainly support that. I think that is reasonable, and I will say this in answer to Mr. Boucher—

Mr. GOODLATTE. I yield to Mr. Boucher to clarify.

Mr. BOUCHER. Well, let me say that I don't support that.

Mr. VALENTI. That was the shortest-lived alliance on record.

Mr. BOUCHER. That is a little more illumination than I heard from my good friend, Virginia colleague, in his original proposal.

You know the very practical problem is this: We have been around awhile. We understand how life works. At this moment the content providers are very interested in obtaining the digital transmission right, and that is something I think the content providers are entitled to. They are at the table here and you are here today talking about the need for that.

At the same time, the online service community has a very legitimate and real concern; and if that is not addressed simultaneously with addressing your very legitimate and real concern, there essentially will be no leverage, no incentive to negotiate and for both

sides to come forward with a recommendation that meets both concerns.

If we postpone until a later day the concerns of the online service community I have no doubt that it is going to be much more difficult to have those concerns reflected in appropriate legislation that the intellectual property community would support. They would have no real incentive to do so at this point in time.

The leverage of both sides is greatest today, and today is the time we need to address both issues. So that will be my view.

Mr. GOODLATTE. Reclaiming my time, let me enlighten the process a little further to say that I think that both sides have much at stake in the online service provider liability issue; and both sides will be subject to whatever court decisions come along, as Mr. Valenti suggested in the interim; and so both sides are at risk in what might happen in that process.

So I think they both have an incentive to try to reach an agreement that they both can live with as quickly as possible, but they haven't reached that agreement now. We have a lot of support and a lot of agreement on the other aspects of this legislation; and that is my reason for suggesting this, not to divert the issue.

And, yes, we can put a lot of pressure on this whole process if we insist on taking care of every issue that arises here; but, quite frankly, we are going to find half a dozen more issues that we haven't even thought about right now and are going to have to come back and address those.

So that is why I suggest talking about that separately, and we will continue my conversations with you so that we can try to reach some consensus on it.

Mr. Valenti, let me ask you about a related aspect of this; and that is, as you know, I support your desire to protect copyrighted works from theft or uploading onto the Internet. I agree that section 1201 would enhance your protection capability. There has been a suggestion, however, that section 1201 regarding circumvention would threaten consumers, retailers and manufacturers of home recording equipment such as VCR's and personal computers.

Briefly, I understand the concern to be that technological development could be stymied by the provisions requirement that all anticopy systems be respected. Does your industry have any intention of interfering with this sort of time shifting that consumers generally do right now with VCR's and may well do with computers in the near future?

Mr. VALENTI. We have no intention of interfering with what the consumer is doing right now, and that includes time shifting. What we are concerned about, Mr. Goodlatte, is video on demand, real pay per view, which neither one are in the marketplace at this time; and in the binary number world, where copying becomes almost lethal because of the lack of degradation of the copies made, that we want to protect that. We hope to come back to the Congress shortly with a compact.

I am hopeful I can do this with hardware people and software content, all the people who have in interest in this at both sides of the spectrum, to present an antidigital copying bill to the Congress which would, however, leave undisturbed everything that the consumer is doing right now.

Let me just set on top of your statement, which I do support, and that is you have to understand what is going on in this world, Mr. Goodlatte. It is moving with such unbelievable speed that it is both bewildering and not understandable. Every one of the companies that I represent today, the large producers of motion pictures, television and home video, are all allied in some way or another with online providers. They are their partners, and if there is going to be any liability they will suffer it just as well as anybody else.

So, therefore, I am saying that in the issue that you raised about moving this bill forward there is leverage on both sides. The people I represent, who are now companions engaged to and soon to be married to online providers, want to make sure that—that—if there is a community property settlement, they want to be sure that they are not going to be hurt too much by this. So there is an incentive to try to find some way to take those extremes and bring them together.

I can't speak for anybody else, Mr. Goodlatte, Mr. Boucher, but I have learned in this town that if you give your word you damn sure better stick by it, and you better not lie about it. And I am guilty of a lot of things, but the betrayal of my commitments is not one of them.

We are involved in this, and we are involved in its sincerely. We want to move it. We are involved in a number of other negotiations that I hope we can solve.

Mr. GOODLATTE. Mr. Chairman, I wonder if I might ask a question in view of the amount of time I yielded to my colleague from Virginia.

Mr. MOORHEAD. Sure, you can.

Mr. GOODLATTE. Thank you. That is, simply given that statement regarding your concerns about piracy, is there a clear way to draft a provision—and I am speaking of section 1201—to make that obvious to concerned potential defendants and should there be any limitations on use of copying inhibitions or encryption technologies to be sure that consumers fair-use rights are not harmed?

Mr. VALENTI. I can't give you a simple answer to a complex question. I will give you an answer.

When—let's go in the digital world now where there are millions of digital machines out there, and you are now going to have video on demand. You call down from a giant server in the sky brand-new movies or all-new entertainment programs. If they are encrypted, they must stay encrypted. Because it is no good to ask somebody to pay \$5 or \$2 or \$3 for that program; and this person, being honest, pays it; and somebody else is overriding that encryption with a black box or some—I call it an infringing device. That is not fair, and sooner or later it will destroy the whole concept of the use of our property.

No. 2, on pay per view, for example, where you are—you are literally having instantaneous reception in a nanosecond, when you call down a movie it is there, it will have to be encrypted. Again, we are not asking the consumer to do anything he is not doing before. Right now, he is copying off of USA cable, he is copying off the networks, he is copying off of HBO, and he is copying off of Showtime, and he will continue to do that except on Showtime and HBO.

We are going to try to limit that to one copy for his library, and that is it. So that the consumer and I am aware of this—if we present a bill to you, Mr. Goodlatte, I may not be the smartest guy in the world, but I am not the dumbest either. We are not going to present a bill to you that is anticonsumer in any way because it is dead on arrival. So we have got to present something to you that is absolutely armor proof against anticonsumerism in any form.

Mr. GOODLATTE. Do I take that as a yes, that we can separate out black box attempting to break through encryption with somebody who is simply copying something for their home use?

Mr. VALENTI. Tell you what I would like to do. I will be very glad to give you a piece of paper on that. Sometimes I find myself—since I am not a Ph.D. in physics, I want to make sure that the technical references that I would make are accurate and correct.

All we want to do is protect our property. We are not asking anything precedential, for goodness sakes; but it is a new world out there, Mr. Goodlatte, and until we find out whether there is some beast slouching toward our uplink point and our downlink point, we have to make—we have to make certain we are protected.

That is all I am interested in, Mr. Boucher and the others, is if not this, what? Who is going to protect what we own?

I will be glad to present a little piece of paper to you, Mr. Goodlatte.

Mr. GOODLATTE. Thank you.

[The information follows:]

As we discussed at the hearing last week on H.R. 2441, one of the key provisions of this legislation is the prohibition on devices or services that have the primary purpose or effect of circumventing technological protections against copyright infringement. You asked some very good questions about this proposed new section 1201 of Title 17, and, as you requested, I would like to offer this brief written supplement to the responses I gave you at the hearing.

You asked about the impact of this provision of H.R. 2441 on the fair use privilege. I believe the impact would be minimal. Fair use is a limitation on the exclusive rights of the copyright owner, but it does not obliterate them. Fair use does not justify someone breaking into a library to read a book in the collection. It does not justify someone sneaking into a movie theater to avoid paying the admission charge. It does not justify hacking into a computer database to avoid the requirement to supply an authorized password. Similarly, if a copyright owner chooses to employ a technological means to prevent members of the public from copying or distributing, without permission, a copyrighted work—be it a text, a computer program, a musical recording, or a motion picture—fair use cannot justify someone who decides to “pick” that technological “lock.”

Still less can fair use justify someone who chooses to go into the business of selling “lock-picking” technology or offering to perform such services for others. That, precisely, is the business that is targeted by the proposed new section 1201. It has nothing to do with fair use; it has everything to do with insidious new forms of copyright piracy and challenging new breeds of copyright pirates. All we ask with regard to this provision is that Congress give us the legal tools to back up the technological means that we may choose to employ to protect and manage our intellectual property rights. I underscore “may” because, as you know, nothing in H.R. 2441 requires any copyright owner to use these technological protections; under their bill, their use is completely voluntary, just as no law requires you to lock your front door. But the law certainly should punish those who make it their business to break down the doors in town that are locked.

I believe this answer also responds to your concern about time-shifting. That is relevant only to the extent that the Supreme Court has ruled out copying over-the-air free television broadcast programs for the purpose of time-shifting is fair use. That is not very relevant to this bill. We are not talking here about over-the-air free broadcast television, but about video on demand, subscription services, and other means—some still over the horizon—of distributing copyrighted material to paying

customers over new digital networks. In this environment, time-shifting is by no means the same thing as fair use.

One precedent for the proposed new section 1201 is the existing law against unauthorized decryption of encrypted satellite signals (section 605 of the Communications Act). That precedent is on point to this question of time shifting. I think it is very unlikely that someone who is prosecuted for selling a "black box" that unscrambles encrypted satellite signals would have much success in arguing that his device was only intended to be used for "time shifting." It would be obvious that the intended use of the device was to allow people to gain access to a satellite service without paying for it. Whether the signal thief watches that program now or later—whether he is "time shifting" or "librarying"—is not relevant to whether or not the "black box" provider is breaking the law. He is, and if he does the same thing with a transmission that is sent over a computer network rather than via satellite, there should be a law against that too. That law is the proposed new section 1201.

Finally, I believe you asked whether MPAA and other groups of copyright owners would work with the subcommittee to clarify the intent and scope of proposed section 1201. Speaking for MPAA, of course we would be glad to do so. I am sure that other groups representing copyright owners would say the same thing. As I testified, we have some improvements to suggest to section 1201, notably making criminal penalties available in appropriate cases. We would be glad to listen to any other constructive suggestion for improving this provision, and to work with you and your colleagues on the subcommittee to make sure that this job is done right.

Mr. GOODLATTE. Thank you for your forbearance, Mr. Chairman.

Mr. MOORHEAD. Thank you.

I want to thank this panel for its excellent testimony and cooperation.

Our first witness on the second panel will be Mr. Robert Holleyman, who is the president of the Business Software Alliance in Washington, DC. He spent 8 years on Capitol Hill as senior counsel of the Senate Committee on Commerce, Science and Transportation and legislative director and assistant to former Senator Russell Long.

Welcome, Mr. Holleyman.

Our second witness is Mr. Edward J. Black, president of the Computer & Communications Industry Association, a trade association comprised of leading manufacturers and providers of computer information processing and communications-related products and services. Prior to being named president in early 1995, Mr. Black served as vice president and general counsel for the CCIA.

Welcome, Mr. Black.

Our third witness is Ms. Barbara Munder, senior vice president for corporate affairs, McGraw-Hill Co. She is responsible for corporate communications, Washington affairs, the business information center and integrated marketing. She is also president of the McGraw-Hill Cos'. Foundation. Prior to assuming her duties at McGraw-Hill, Ms. Munder was vice president for business development of Business Week.

Welcome, Ms. Munder.

Our fourth witness is Mr. Gary Shapiro. He is president of the Consumer Electronics Manufacturers Association, a sector of the Electronics Industries Association and chairman of the Home Recording Rights Coalition. He serves on the executive committee and the board of directors of the Advanced Television Test Center and on a number of major industry coalitions and committees.

Welcome, Mr. Shapiro.

Our fifth witness is Mr. Gary McDaniels, president of Skills Bank Corp. in Baltimore, MD. Prior to that, Mr. McDaniels was Di-

rector of Special Education Programs for the U.S. Department of Education and also Deputy Director of the Institute for Program Evaluation of the General Accounting Office.

Welcome, Mr. McDaniels.

Our sixth and last witness on this panel is Mr. David Ostfeld, vice chairman, U.S. Activities Board of the Institute for Electrical and Electronics Engineers. He has been a member of the institute since 1965 and a member of the Intellectual Property Committee since 1984, chair, and then vice chair of the Intellectual Property Committee starting in 1987 to present.

Welcome, Mr. Ostfeld.

We have written statements from our six witnesses. I ask unanimous consent they be made a part of the record and ask that you all summarize your statements in 10 minutes or less. I ask that the subcommittee hold their questions of all witnesses until they have completed their oral presentation.

Mr. MOORHEAD. We begin with the testimony of Mr. Holleyman.

STATEMENT OF ROBERT HOLLEYMAN, PRESIDENT, BUSINESS SOFTWARE ALLIANCE

Mr. HOLLEYMAN. Mr. Chairman, thank you very much for the opportunity to testify today on behalf of the Business Software Alliance. You and the members of your subcommittee have been strong defenders of the U.S. copyright system; and indeed, for those of us who are in the U.S. software industry, we attribute much of our success to the decisions that this Congress made in 1976 when it reaffirmed that the longstanding provisions of copyright protection should indeed be applicable to computer programs.

The Business Software Alliance represents the leading publishers of computer software for personal computers, and we conduct antipiracy efforts on behalf of our companies in nearly 60 countries around the world. Additionally, we work on critical public policy issues such as the ones that this committee is considering as part of the global information infrastructure and considering revisions to the U.S. copyright law.

We believe that we, as an industry and as an association, have seen much that is of relevance to this committee's inquiry. Computer programs are, by definition, digital works. We have been both at the forefront of the dissemination of works in a digital form, and we have also been the victims of copyright infringement because our works can easily and readily be infringed with the simple press of a button or a few keystrokes.

We would affirm this committee's initial inquiry, the inquiry which we believe you, too, affirmed in introducing the legislation that is before this subcommittee, which is that copyright is the appropriate means of protecting works in a digital form. We believe that the growth of our industry is a direct testament to that.

I think it is clear that the United States does not have a lock on innovative computer programmers. We do not have the only innovative entrepreneurs.

What we did have affirmed again in 1976 was a decision by this Congress to insure that copyright law was applied to computer programs. That allowed us to take the innovation that existed in this country, but which was not exclusive to this country, and create a

market which has both benefited U.S. software companies who are, far and away, the world leaders as it has benefited consumers.

All of our businesses are more productive today. I hope that our children are better educated, and indeed I believe that all of our lives are richer because of the decision of copyright protection that promoted the development of computer programs.

Today, there are 40 million Internet users worldwide. Modems allow the dissemination of information in computer programs 10 times faster than merely 5 years ago.

In our formal testimony we set forth seven principles that we believe this committee should look at in considering legislation and copyright protection in a global information infrastructure. I would like to focus on three of these today.

One is that copyright protection works. We do believe it is appropriate to make modest modifications in the law to recognize changes in the way in which copyright owners choose to distribute their works.

I would like to pose a hypothetical. Today, most consumers purchase their computer programs by walking to their local retailer, such as an Egghead store, which is on the corner of every other street corner in downtown Washington. Just as a consumer goes into that store today to buy a tangible copy, so, too, in the future companies like Egghead may determine that they wish to distribute software via transmissions, to distribute it electronically, perhaps because it is more efficient to do so, perhaps because it allows consumers in remote locations to access the same computer programs with the same ease that you and I have—in downtown Washington.

We believe that simply because a work is in a tangible form it should not alter the protection of that work if it is transmitted in a digital form. It is precisely the same nature of transaction whether Egghead sells it from a shelf in downtown Washington or Egghead online sells it electronically, and we believe that this bill makes the appropriate modifications in the copyright law to address that potential.

Second, we believe that, just as an Egghead store today has a lock on its door to insure that only legitimate customers purchase a computer program, so too in the future an Egghead online, if there was such an entity, would need to have a lock to insure that only legitimate purchasers acquire the software that they buy from Egghead online.

Indeed many of the BSA member companies are already distributing some of their software online, and it is as important for them to ensure that there is copy protection for that product just as it is important for an Egghead store to determine that they have a lock on the door of their retail establishment. Just as it should be unlawful and not permitted for someone to sell a device whose primary purpose is to defeat the lock on the Egghead store, so too we believe that the law should not permit entities to manufacture, import or distribute, and indeed the BSA would argue to “use,” devices whose primary purpose is to defeat copy protection—the lock which is on that digital copy.

Similarly, copyright management information systems will play a key role in distribution of products online, just as there is a copy-

right notice on the box of software that is sold in the Egghead store today. So, too, in the future copyright owners may avail themselves of the opportunity to have a copyright management information system that would identify both the owner and the terms under which that material is licensed. We believe that your bill appropriately establishes penalties for those individuals or entities who would alter or falsify that copyright management information.

Finally, let me conclude with what I think is the third key principle, which is the issue of security. The national information infrastructure and indeed the global information infrastructure will not work without adequate security. It is necessary to both promote on-line commerce and necessary to insure the privacy of individuals who are using the Internet. Security is critical, and encryption technology is the only means to insure that today.

Currently, U.S. software companies manufacture a variety of products which provide security; but U.S. software companies are not allowed to sell outside of the United States software that has adequate security and that is because of an executive order which prohibits U.S. companies from competing fairly in this growing market.

We believe that these issues are critical to address along with copyright protection. All three of these issues are relevant to ensuring that we have a truly global communications infrastructure.

The world is watching. This committee has led the way historically. This committee made important decisions in 1976 with regard to computer programs. We encourage the committee to move ahead with its legislation because we think that sends an important signal not only to markets in this country but indeed to the international community.

Thank you.

[The prepared statement of Mr. Holleyman follows:]

PREPARED STATEMENT OF ROBERT HOLLEYMAN, PRESIDENT, BUSINESS SOFTWARE ALLIANCE

INTRODUCTION

Mr. Chairman, thank you for the opportunity to appear before the Subcommittee today. My name is Robert Holleyman. I am the President of Business Software Alliance (BSA). On behalf of the leading U.S. software publishers, BSA conducts public policy, education and enforcement programs in more than 60 countries. BSA's Policy Council includes: Adobe Systems, Inc., Apple Computers, Inc., Autodesk, Inc., Bentley Systems, Inc., Computer Associates International, Inc., Digital Equipment Corporation, Intel Corporation, International Business Machines Corporation, Lotus Development Corporation, Microsoft Corporation, Novell, Inc., The Santa Cruz Operation, Inc. Sybase, Inc. and Symantec Corporation.

I appear before you today in support of congressional action to ensure that our copyright law continues to provide the needed incentives to authors and other creative Americans to take into account today's rapidly changing technological advances.

I commend Chairman Moorhead, and Representatives Schroeder and Coble, for introducing H.R. 2441, the "NII Protection Act of 1995." This important piece of legislation approaches the challenge at hand in a measured and sensible way. That challenge, simply put, is to ensure that the economic rewards of network-based distribution of copyrighted works accrue to all persons—both the authors creating such works, as well as their intended audiences and customers.

Before presenting the views of the American software industry, I would like to dispel some myths. Since the introduction of this legislation, it has been subject to unsupported and undue attacks. We have heard stories that copyright is an outdated form of protection for intangible property, and that it has outlived its usefulness. This argument assumes that in a networking environment, property has no

place. Thus, at best, this legislation is an outdated irrelevance. This is simply absurd.

Others have argued that this legislation constitutes an unabashed grab for property rights in the now evolving world of cyberspace. If this legislation is enacted, it is argued, the power, purpose and promise of the NII will be strangled in its infancy, never to fulfill its potential. It will allegedly suffer this fate because customers and users will be precluded from reaping its benefits as property rights are asserted in the very content which these users seek to enjoy. This too is absurd. Businesses depend on customers. If no one purchases our products, there is no business. To say that businesses will actively work to drive away their customers is irrational and detached from reality.

Now for some facts. Today, worldwide, over forty million people use the Internet and other similar systems in the course of their daily lives. We use local networks in the office, and wide area networks at home and in schools. Because of advances in modem technology, we can now communicate more than ten times faster than just five years ago. Because of improvements in screen resolution, we now see better and sharper graphics. And, advances in software technologies now enable us to work collaboratively with colleagues across the hall as easily as across oceans. Also, these networks are being used to transact an increasingly varied universe of activity: from banking to home shopping, from researching a school project to corresponding with friends and family.

All of this has happened under the current copyright law, which, far from an impediment, is in fact an incentive for new investment and product development.

But the law also faces challenges.

This is not a new phenomenon for copyright law. Our copyright system has evolved over time through legislative and judicial action. It has progressively embraced and nurtured new forms of creative expression. The copyright system is characterized by principles designed to foster innovation and promote competition; it is well-suited to computer software, and well suited to the NII.

The vibrant, working copyright law embraces not only novels, plays, poetry, paintings, sculpture and music, but also has long been the principal source of legal protection for a wide range of works, whether expressed in words, numbers, symbols, images, or electro-magnetic polarities and pulses. The very first Copyright Act, enacted in 1790, protected "maps, charts and books" (charts were nautical maps), thus emphasizing the First Congress' recognition of the importance of copyright as an incentive to the production of highly practical, usefully employed intellectual effort.

Congress and the courts have regularly and consistently confirmed copyright as the vehicle to promote experimentation and creation in new media, as they did through the 19th and 20th centuries in extending protection, for example, to photographs, motion pictures and sound recordings. They recognize that—given the opportunity, talent and protective legal environment—risk-taking and consumer preferences will do the rest. In 1976, when Congress made clear its intention to embrace computer programs within the protection of the Copyright Act, it simply carried on a long and productive tradition of confirming the reach of copyright to new forms of creative expression.

It is within this context that we believe H.R. 2441 should be weighed and considered.

Today's challenges posed by technology to authors and other innovators is this: consumers are increasingly demanding and using works and information disseminated in digital form by electronic means. This trend is certain to accelerate in the future. But works in digital form are far more vulnerable to copying than works distributed in traditional printed or other forms. This is not a new development for the software industry; we have just sold our products in digital form. Piracy has been a constant by-product. We estimate the worldwide losses to pirates to exceed \$15 billion every year. The only tool we have to fight against this theft is to assert our copyright-based property rights. Over time, our losses will inevitably mount, unless the copyright law remains available to fight these pirates.

H.R. 2441—In Context

In general, our industry measures any proposed change to copyright law by certain rules of thumb. Applying these in the NII context, we believe that the principles Congress should weigh in judging the merits of H.R. 2441, and amendments proposed to it, are:

Copyright protection should be maintained at least at present levels.

Changes to the copyright law should not be undertaken hastily, and then only to plug gaps found to exist in the current scheme of protection.

The author or other right holder of a digital work should have the exclusive right to distribute, reproduce and modify the work.

The author should have the exclusive right to upload, transmit, and access, and download the work electronically.

Right holders should retain the ultimate decision to determine whether to license their works and enforce their rights collectively or individually.

Unauthorized access to information databases and content through the information infrastructure should be a crime.

And,

Compulsory licensing of any intellectual property right should be avoided.

Specific provisions of H.R. 2441

Transmission rights

The BSA believes it is appropriate to amend the copyright law to specifically state that "transmissions" are covered acts for two reasons. First, electronic distribution poses a heightened threat of further unauthorized copying and distribution of the work. Second, while it is quite likely that courts would interpret Section 106 distribution rights to also cover transmissions, stating this matter explicitly would remove doubt. Such an amendment would reaffirm that copyright law is fully applicable in the context of electronic delivery of works, and that the basic rights guaranteed by the law apply undiminished.

The BSA also supports the conforming changes to Section 101—clarifying the definitions of "transmit" and "publication"—and Section 602—clarifying the application of the importation right. In general, we support these changes because they again reaffirm the principle that copyright law is fully applicable to distribution systems which utilize electronic networks to deliver works in digital form.

We would like to make certain observations in respect of each proposed change.

The legal act of "publication" has implications for the deposit and registration requirements of the law. The software industry has a long history of registering and depositing works in compliance with these requirements. We believe Congress should make it clear that it does not intend these changes in law to impose a different burden on authors of software than those implemented under current Copyright Office practice. Further, we do not believe that the H.R. 2441 and proposed amendments should cause any change to this practice.

The conforming amendment to the definition of "transmit" in Section 101 is necessary to ensure consistency among the various provisions of the law. Under current law, generally only performances and displays are covered by the term "transmit." Technological developments have now made it possible to transmit works that are not just performed or displayed. We believe that this change would make it clear that the mere choice of the means by which the work is made available to the consumer does not determine the implicated rights: that is, that the reproduction right may be implicated as well as the public performance and display rights. Moreover, given these technological developments, several of the author's economic rights in the work are affected by electronic transactions whereby the work is made available, regardless of the specific means utilized. Thus, it is beneficial for the law to explicitly recognize that just because the transaction has not taken place face-to-face over a counter in a shop, that mere fact does not in any way alter or diminish the authors' interests in the reproduction right. Thus, we support clarifying that the law covers transactions even where a tangible fixation is not immediately and easily identifiable.

Finally, the right of importation is critically important to the software industry. We believe that the ability to determine the terms and conditions on which a work is made available in a particular market should be a matter of business strategy. The U.S. copyright law has long recognized this principle. Historically, works have been traded and transported across borders in tangible form. Technology is now making it possible to conduct international commerce in software across borders by the use of electronic communications systems. This change in technology, while it has important commercial implications, does not alter the authors' economic interests in the work, nor does it alter the calculus which prompted Congress to make the right of importation part of the authors' bundle of rights.

Overall, we believe these proposed changes are appropriate and sound: to state clearly in the law that the distribution right applies fully to works made available via transmissions, including when such works are imported. Consistent with these changes, we would support including in the legislative history of the bill an affirmation that copyright law granted rights may be implicated in a transaction whether the work is transferred in tangible or intangible form; and that the mere choice among alternative means of making the work available—retail sales, rental or by electronic transmissions—shall not be dispositive in determining the grant of the rights enumerated in subsections (1) to (5).

Library exception

H.R. 2441 would amend the "library exception" contained in Section 108 in two ways: by inserting the term "digital;" and, by permitting libraries to make up to three digital copies of a work for purposes of preservation and replacement.

Originally, Section 108 was intended to cover only microfilm of electrostatic copies of works. The House Report on the 1976 amendments to the Act made it clear that the exemption does not apply to works in machine-readable form. The H.R. 2441 proposed amendment would change this situation.

Recognizing the important public purpose served by libraries, we support ensuring they can continue to perform their important service. We have certain reservations. We fear that unless uses of such digital copies are appropriately limited, copies of works may be made available by libraries to the general public in ways which could undermine actual or developing markets. Thus, we would support further clarification of the proposed changes to state explicitly the ways in which libraries may use copies made pursuant to Section 108. In addition, we understand that the proposed change to permit the making of three copies of the work (only one copy is now permitted), is a function of the current methods libraries use to preserve works. If this change were adopted, we would urge you to permit this increased number of copies only in respect of preservation activities contemplated under Section 108.

Visually impaired

The American software industry strongly supports the development of special products and services to meet the needs of persons with disabilities of any kind, including the visually impaired. Software generally, and word processing products with scalable fonts in particular, can make textbooks, magazines and other similar products instantly available to visually impaired persons in forms which are more accessible to them. We have certain reservations with the specific drafting of this provision. The bill proposes to permit the production of literary works generally in forms accessible to the visually impaired one year after the work has been first marketed, if the publisher has not issued such a special edition. It is our understanding that certain textbooks and other similar published materials are the principal works at issue. Yet the language is written broadly, to effectively grant a limited purpose non-voluntary license in respect to all classes of works. We understand that representatives of persons with disabilities and content providers are now working on developing a more specifically articulated objective for this provision. We support these efforts, and encourage you to facilitate them.

Copyright protection systems and copyright management information

A key judgment underlying H.R. 2441 is that electronic dissemination of works in digital form will make them more vulnerable to unauthorized copying. We agree fully with this assessment. To address this increased threat, the bill correctly surmises that authors will make increased use of both anti-copying technologies, as well as "identifiers"—such as "electronic envelopes" containing the name of the copyright owner and the terms and conditions for licensing the work.

Specifically, H.R. 2441 proposes to make it unlawful to defeat or circumvent both copyright management information and copyright protection systems. This is a sound provision which recognizes that if authors seek to protect themselves against theft by applying technological measures, the unscrupulous will seek ways around such measures.

1. Copyright Protection System.—H.R. 2441 would establish a "primary purpose" test for determining whether a particular device falls within the scope of those prohibited by the bill. This provision's soundness has been questioned because it is conceivable that a device may have a number of alternative uses—both legitimate and unlawful. We recognize this fact, but it appears to us that US courts will understand that this provision, or a broader based one, is to be used to enforce the copyright law and fight against piracy.

BSA has a long history of conducting anti-piracy work both domestically and internationally. In litigating against pirates, we have often heard them rationalize their piracy by arguing that while they may have copied the software at issue, their real lesson for doing it was for some other "legitimate" purpose excused by the law. This is the type of activity the provision attempts to address.

Our anti-piracy litigation experience does suggest a modification to H.R. 2441. The bill now prohibits certain acts, namely "importation, manufacture or distribution" of any anti-circumvention device. We believe that the law would be a more effective tool against pirates if it were to also prohibit the "use" of such devices. In our litigation, we have learned that establishing liability can be hard unless persons are legally liable for using such devices for illicit purposes.

Some persons have raised concerns that these provisions may be used to prevent the making of copies of works for legitimate purposes. This was addressed in the White Paper: "It has been suggested that the prohibition is incompatible with fair use. First, the fair use doctrine does not require a copyright owner to allow or to facilitate unauthorized access or use of a work. . . . Second, if the circumvention device is primarily intended and used for legal purposes, such as fair use, the device would not violate the provision because a device with such purposes and effects would fall under the 'authorized by law' exemption." (*Intellectual Property and the National Information Infrastructure, The Report of the Working Group on Intellectual Property Rights*, 231.)

As we understand it, H.R. 2441 establishes no obligation on the part of Right holders to install anti-copying and copyright management systems. We agree fully, and believe that whether or not to use systems should be a matter of voluntary choice by the right holder. The software industry has used copy-guard systems for sometime. Our decisions to implement such systems have varied over product lines and over time. These decisions have been based on a combination of factors: the devices' relative effectiveness; consumer acceptance; and cost factors. We believe that in the future we should remain free to make these choices on a case-by-case basis. Thus, we believe the legislative history of the bill should make it clear that implementation of these measures within a particular copy of a work is a matter of choice for the right holder.

2. Copyright Management Information.—We support the provisions of H.R. 2441 on copyright management information. This information can take many forms, and generally would include the name of the copyright owner and the terms and conditions for obtaining licenses to the work. We believe that wide use of such identifiers will promote dissemination of works, as well as reduce transaction costs.

We also support the approach of the bill in that it does not require copyright owners to implement copyright management information, rather it makes it illegal to remove, alter or falsify such information when it is included.

Finally, with respect to both copyright protection systems and copyright management systems, we support the bill's approach in that it does not establish standard technologies and formats which these measures must take. Technology in these areas is developing rapidly. To establish a specific standard or format at this time would fossilize existing systems, and cause us to lose the benefit of future innovation. Thus we fully support the approach which would leave the marketplace to develop the particular systems used.

3. Other Issues.—Although not specifically addressed in H.R. 2441, I would like to comment briefly on four additional important issues and considerations. First, the fair use provision codified in Section 107 of the copyright law is a well established doctrine, which has proven to be flexible and adaptable to a variety of types of works in a multiplicity of circumstances. We believe that the doctrine and the balancing of interests it safeguards, can be applied as currently written and interpreted to digital environments. For these reasons we do not believe it to be necessary to modify the Section 107.

Second, the issue of copyright liability of on-line service providers has been in the news in recent months as a consequence of a number of court decisions. BSA is participating actively in on-going discussions among a broad ranging group of interested parties to find a viable solution to this issue.

Third, mentioned in the White Paper but not specifically addressed by H.R. 2441, is the fact that security is a critical component to the success of the GII. The White Paper recognizes that "[t]he NII has the potential to be a robust and widely used medium for the creation, dissemination and use of information-based products and services. To realize this goal, the technological and security needs of users, service providers, carriers and content providers must be addressed." (*Intellectual Property and the National Information Infrastructure, The Report of the Working Group on Intellectual Property Rights*, 177.) Currently, U.S. export laws prohibit U.S. software companies from offering strong security features worldwide. This places the U.S. industry at a competitive disadvantage. This situation must be addressed immediately in order to ensure the success of the GII.

Finally, a brief word about international implications. Our industry is a major exporter. Over 50 percent of our total sales occur outside the United States. This trend is certain to continue. Moreover, political national boundaries diminish substantially in their importance in the context of network-based distribution of works. Decisions by the United States Congress in formulating copyright policy in this area has a major impact on the international scene given our role as the major producer of both the technology and the content which will constitute global information networks. For these reasons, we applaud the efforts of the United States to modernize the Berne Convention, and to place squarely on the agenda of those negotiations the

very issues addressed by H.R. 2441. As you proceed with your consideration of this bill, we would urge you to keep in mind the precedents you will be setting both domestically and internationally.

CONCLUSION

The copyright law is strong and well-established, and has proved flexible enough to deal with new developments as they have arisen. Software developers and other content providers take comfort in the fact that their works are protected under these clear, established rules, and therefore continue to invest in development of new and innovative works which will benefit the information infrastructure. We support the approach of H.R. 2441 because it clearly and firmly establishes the principle that copyright law is alive and well, and fully applicable in digital and electronic networking environments.

Mr. MOORHEAD. Mr. Black.

STATEMENT OF EDWARD J. BLACK, PRESIDENT, COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION

Mr. BLACK. Thank you, Mr. Chairman. I appreciate the opportunity to appear before you today on behalf of CCIA, the Computer & Communications Industry Association. I especially welcome the opportunity to address the issues related to H.R. 2441 because of their importance, far-reaching consequences and complexity.

CCIA members are involved in all aspects of the NII, as leading builders of the network infrastructure, as providers of content and information services, and as manufacturers and providers of Internet servers, World Wide Web browsers, and terminal and storage equipment. CCIA is, thus, at the very heart of the emerging technologies which will bring the U.S. NII into the 21st century.

CCIA, unfortunately, has significant reservations about the proposed legislation as currently worded as well as its omission of issues which we believe are crucial if we are to have a final legislative proposal which fairly and reasonably balances the rights and responsibilities of all parties.

We hope at the end of the day to be able to support positive legislation that moves us into a new era and that we are not in the position of having to oppose legislation which inadequately and in an unbalanced way addresses only piecemeal the problems we face.

Our key concerns include the impact of a digital transmission right, the liability of Internet and on-line service providers, the importance of the first-sale doctrine, the impact of the fair-use doctrine, the scope of the anticircumvention provision of the copyright protection systems, and we want to address an international dimension to this proposal.

Any new legal construct created or modified to protect the rights of copyright owners must vigilantly take into account the paramount and underlying purpose of the intellectual property laws, which are to promote the sciences and useful arts we find in our Constitution. Our industry is growing at an ever-accelerating pace, as its various sectors converge. The historic telecommunications bill to be signed tomorrow will hasten this growth and convergence.

Our intellectual property system has been a key to this growth, and I agree that changes in 1976 were vital. We support the balanced intellectual property system which resulted. It has given firms in the computer and communications industry the incentive to invest billions of dollars in research and development because we knew we would be able to reap the fruits of our labors.

On the other hand, our IP system has not given so much protection as to stifle competition by allowing firms to exercise excessive monopoly power based on their intellectual property portfolios.

Balanced intellectual property protection is just as important in the digital environment as it has been previously. We want creative content to be available on the NII which will allow consumers to purchase more NII equipment and services. Solid intellectual property protection will increase content providers' willingness to make their content available on the NII, and we support such protection.

Most CCIA members are also content providers in their own right, have long supported our copyright laws and hope to distribute their products on the NII. Our current system is not broken—nor in danger of being broken because of technology. The greatest threat to the magic of our system will come from modifying our laws in a way which disrupts the delicate and necessary balance which has been the bedrock of our success.

Does our complex structure of laws need updating because of technological developments? Absolutely. But the basic system is not broken; and we are concerned that, if enacted without substantial modifications, H.R. 2441 could itself do more to break our system, unintentionally perhaps, than is currently understood.

Our industry has potential to be a cornucopia of growth and jobs, a veritable bottomless cookie jar. Let us not break the jar by letting one group try to grab too much, too soon. We will all benefit enormously if we maintain our balanced system and take into account the legitimate rights of all those involved, not just narrow, selfish and short-run interests.

Overprotection may undermine consumer demand for the NII if online service providers are strictly liable for the infringement of their subscribers. They will try to pass the cost of the liability on to consumers in the form of higher access fees. These higher fees but, more importantly, the providers' wariness of the financing necessary to build and offer services, will dampen or even halt the development of NII.

If I learned anything over the years dealing with this industry it is that we must always do what is best for our customers. Short-term efforts to maximize our profits at our customers' expense always leads to adverse long-term consequences. We must take care not to make the NII so expensive that the consumers cannot afford to use it.

For this reason, CCIA has joined with many others, including the Digital Future Coalition, and is open to working with all groups necessary in order to strike the right balance between the interests of content providers, consumers and all those with a legitimate stake in the digital copyright world. We would be bewildered if any Congress, especially this one, would try to write anticipatory legislation imposing governmental solutions in areas where problems are only contemplated and their shape is as yet ill-defined.

I'll focus on a few specific issues. Legislation would establish a digital transmission right. We are not opposed to an overall concept of such a right, but this new right would increase the potential liability for distributors and users of content if it is not balanced by appropriate limitations.

CCIA is concerned that the liability of operator service providers and builders of the information networks for the content they transmit will impede not just the growth of the existing firms and the movement of many firms to maybe looking into this field but certainly of newer and younger startup companies as well. The result might be an NII that only allows users to view data, not engage in two-way interactive communication that allows the uploading and manipulating of data. It might also force online service providers to restrict access only to companies and individuals willing and financially able to indemnify themselves.

The first-sale doctrine essentially gives a purchaser of a particular copy of a work the right to dispose of it as he or she pleases. CCIA believes that Congress should give careful consideration to insuring that the first-sale doctrine is applicable to both works distributed by traditional means and by electronic means as long as the purchaser does not retain a copy of the original after sending it to a third party electronically.

We are alarmed by the claim in the white paper that, quote, "it may be that technological means for tracking transactions and licensing will lead to reduced applications and scope of the fair-use doctrine." The fair-use doctrine has a longstanding history in the United States, and we would ask that Congress keep close watch to insure that the integrity of the fair-use doctrine is not disturbed deliberately or inadvertently. The applicability of the fair-use doctrine is just as important to digital works as it is to analog works.

Although CCIA wholeheartedly supports attempts to prevent piracy of copyrighted works, we are concerned about the scope and consequences of Section 1201, Circumvention of Copyright Protection Systems, as drafted. The administration has indicated this section would not prohibit an anticopying circumvented device "primarily intended and used for legal purposes." This is, unfortunately, not an adequate answer in light of the Supreme Court ruling in *Sony v. Universal City Studios*.

The Court there applied, we think, the proper standard that if there are legitimate uses that are out there, it is improper to have the broad contributory liability applied and the manufacturer should be shielded from suit.

We cannot know upfront, before we make something, what its uses will be—and that is, in essence, what this legislation calls for. Liability for people and for a device which people think will do something. That is the part of this legislation that we believe has a very big chilling impact.

We should stress that there are a number of legitimate uses for the kind of products and devices which also, unfortunately, can be used for infringement.

I call your attention to the NII Advisory Council set up by the White House. In its March 1995 report, it made a recommendation, which we particularly want to point out to the committee, which sounds like Mr. Valenti agrees with.

When addressing intellectual property issues, they indicated that, quote, "some amendments and clarifications may be advisable," but cautioned that "legislative changes should not be made precipitously without a full and fair hearing of all the issues."

We ask this subcommittee to carefully consider that recommendation and that no action be taken on legislation until Members have had a chance to review the new recommendations to be reported by the NII advisory group in the first quarter of this year.

We urge the subcommittee to support comprehensive hearings for the purpose of thoroughly scrutinizing the full range of intellectual property issues.

I will end, if I could, with one metaphor. This, I think, characterizes the issue. We agree that we have an airplane, intellectual property, which has soared our industry to great heights. We also agree that it needs to be beefed up and modified. What we are saying is that some of the proposals in this legislation alone are like beefing up the engines of the plane and not modifying the wings and the fuselage. You can't do it later. It is not going to fly. It is not only not going to get us to the new heights we want to get to, it could crash.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Black follows:]

PREPARED STATEMENT OF EDWARD J. BLACK, PRESIDENT, COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION

Mr. Chairman, Members of the Subcommittee: I appreciate the opportunity to appear before you today on behalf of the Computer & Communications Industry Association (CCIA). My name is Ed Black and I am President of CCIA. We especially welcome the opportunity to address the issues related to H.R. 2441 because of their importance, far-reaching consequences and complexity.

CCIA is comprised of leading manufacturers and providers of computer, information processing and communications-related products and services. CCIA's member companies represent a broad cross-section of the information and communications technology industry ranging from young, entrepreneurial companies to many of the largest in our industry. They collectively generate annual industry-derived revenues in excess of \$180 billion.

CCIA's members are involved in all aspects of the National Information Infrastructure (NII), as leading builders of the network infrastructure, as providers of content and information services, and as manufacturers and providers of Internet servers, World Wide Web browsers, and terminal and storage equipment. Thus, CCIA is at the very heart of the emerging technologies which will bring the United States' NII into the 21st century.

Mr. Chairman, CCIA has closely followed the progress of the Administration's White Paper on Intellectual Property and the NII. Upon publication of the Administration's earlier Green Paper, CCIA filed a comprehensive set of comments on the initial thinking of the Administration. At that time, CCIA raised a number of issues which we believe were not adequately addressed. Unfortunately, most of our concerns remained after the publication of the White Paper. These include:

- The impact of the digital transmission right,
- Liability of on-line Internet service providers,
- The importance of the first sale doctrine,
- The impact on the fair use doctrine,
- The scope of the anti-circumvention provision for copyright protection systems,

and

- The international dimensions of this proposal.

After reviewing the Administration's White Paper and the subsequent legislative proposal, H.R. 2441, CCIA has significant reservations about the proposed legislation as currently worded as well as its omission of issues which we believe are crucial if we are to have a final legislative proposal which fairly and reasonably balances the rights and responsibilities of all parties.

BACKGROUND

CCIA believes that any final legislative proposal regarding changes in intellectual property must be designed with public expectations in mind, not despite them. Any new legal construct created or modified to protect the rights of copyright owners

must vigilantly take into account the paramount and underlying purpose of the intellectual property laws: "to promote the sciences and useful arts."

Mr. Chairman, I have been with the CCIA for over 10 years. During this period, I have seen this industry grow at an ever accelerating pace, and its various sectors converge. The historic telecommunications bill passed just two weeks ago will hasten this growth and convergence.

A key element to this growth has been our intellectual property system. On the one hand, it has given firms in the computer and communications industry the incentive to invest billions of dollars in research and development because we knew we would be able to reap the fruits of our labors. On the other hand, the IP system has not given so much protection as to stifle competition by allowing firms to exercise excessive monopoly power based on their intellectual property portfolios. The notion of balanced intellectual property is found in the Constitution, in the intellectual property statutes passed by Congress, and in the judicial decisions applying these statutes.

Balanced intellectual property protection is just as important in the digital environment as it has been previously. We want creative content to be available on the NII. Interesting content will make consumers purchase more NII equipment and services, which will benefit CCIA members. Because strong intellectual property protection will increase content providers' willingness to make their content available on the NII, we support such protection. I should note that many CCIA members are also content providers in their own right, and hope to distribute their products via the NII.

At the same time, over-protection may undermine consumer demand for the NII. If on-line service providers are strictly liable for the infringements of their subscribers, they will pass the cost of this liability onto the consumers in the form of higher access fees. These higher fees will dampen use of the NII. Further, legislative changes which make software interoperability more difficult to achieve will decrease competition in the infrastructure of the National Information Infrastructure, again raising prices for the consumer.

If I have learned anything over my years in the industry, it is that we always must do what is best for our customers. Short term efforts to maximize our profits at our customers' expense always lead to adverse long term consequences. Yes, we need good content on the NII to make the NII attractive to consumers. But, we also must take care not to make the NII so expensive that the consumers cannot afford to use it. For this reason, CCIA has joined with others, such as the Digital Future Coalition, and is open to working with all groups necessary, in order to strike the right balance between the interests of content providers and consumers.

Our current system is not broken nor in danger of becoming broken because of technology. The greatest threat to the "magic" of our system will come from modifying our laws in a way which disrupts the delicate and necessary balance which has been the bedrock of our success. Does our complex structure of laws need updating because of technical developments—certainly they do. But the basic system is not broken, and we are concerned that if enacted without substantial modifications, H.R. 2441 would itself do more to break it, unintentionally, than is currently understood.

Our industry has the potential to be a cornucopia of growth and jobs, a veritable bottomless cookie jar. Let's not break the jar by letting one group try to grab too much too soon. We will all benefit enormously if we maintain our balanced system and take into account the legitimate rights of all of those involved, not just our most narrow, selfish and short run interests.

We are bewildered that any Congress, especially this one, would try to write anticipatory legislation imposing government solutions in areas where problems are only contemplated, or their shape is as yet ill-defined.

As Congress proceeds to adapt the copyright law to the electronic medium, it should take care to ensure that all the current specific rules allocating rights, responsibilities, liabilities and defenses remain viable, and to preserve the underlying and essential balance and fairness which have made our system so successful.

Some of the questions that need to be answered if we are to have positive and balanced legislation include:

Should "exclusive rights" as reflected currently in the Copyright Act be adapted to the necessity of producing and sharing of content in a digital marketplace?

Should those expecting to receive monetary rewards be expected to bear the expense of securing that reward, i.e., the costs of technological enforcement?

What should be the scope of the "Fair Use" doctrine in the digital environment?

Should on-line service providers be liable for infringements by subscribers about which they have no notice?

Should copying technology be severely restricted, and what would the impact on technological innovation be if a new provision broadly prohibits the development of new technology, and what would be the concomitant market loss from such a prohibition?

The balance of CCIA's testimony will comment on the legislative proposal implementing the Administration's White Paper recommendations and the reservations we have about its scope.

DIGITAL TRANSMISSION RIGHT

The proposal to create a digital transmission right is clearly an important part of the legislation. CCIA is mindful of the fact that under current law it is not clear whether a transmission can constitute a distribution of copies of a work. Therefore, this legislation would amend the Copyright Act to expressly recognize that copies can be distributed to the public by transmissions and that such transmissions fall within the exclusive distribution right of the copyright owner. CCIA is not opposed to this concept in principle.

By modifying the distribution right, the proposed legislation makes clear that all of the exclusive rights enumerated in section 106 are affirmed in the digital medium. Copyright owners are certainly entitled to protection of their works both under traditional distribution schemes and under future schemes which will evolve in electronic commerce. However, the proposed blanket transfer of rights related to the digital transmission right creates a number of difficulties for other important actors on the National Information Infrastructure, namely distributors of content and users of content.

LIABILITY OF ON-LINE SERVICE PROVIDERS

CCIA members are investing billions of dollars building the NII of the future. They are also introducing a wide variety of new electronic information products and services, including Internet access, on-line services, world wide hosting, and Internet servers, and other electronic platforms and services for users.

As the Chairman and Members of the Subcommittee are also aware, the courts are continuing to grapple with the application of the intellectual property laws in the new electronic world of bulletin boards, e-mail, Internet, and on-line information services. In addition to the issues of direct liability of users for copyright infringement, CCIA is concerned about the liability of operators, service providers and builders of information networks for the content they transmit.

CCIA, therefore, believes that the applicability of the doctrines of contributory infringement and vicarious liability to on-line and Internet services and products needs to be reexamined in the NII environment. CCIA met on several occasions with the Administration to express our concerns about liability. In fact, the White Paper specifically mentions these concerns on page 114. The White Paper's recommendation, however, "that the best policy is to hold the service provider liable" (page 117), is an unfortunate result.

If the law of contributory infringement and vicarious liability, as interpreted by the White Paper is applied to companies providing interactive services, these companies will be discouraged from providing such services or building the infrastructure for the NII due to the enormous risks of liability. The result might be an NII that only allows users to view data, not engage in two-way interactive communications that allow the uploading and manipulating of data. Moreover, such a standard for liability might also force on-line service providers to restrict access only to companies and individuals willing and financially able to indemnify themselves if their activities result in copyright infringements on their systems.

Some argue that the existing copyright law will change very little by this legislation. In fact, there are three reasons why it is critical that the liability issue be addressed now. First, although it has been claimed that the existing law is only being "clarified" to add the concept of "transmission" to the definitions of publication and distribution in section 106 of the Copyright Act, the result of this "clarification" is that the simple act of transmitting material can now be viewed as an act of direct infringement. Second, the White Paper rejects an actual knowledge approach as discussed in the Netcom decision.

Third, much troubling case law is being decided and the White Paper is being cited as authority in briefs and in court decisions.

Thus, CCIA believes that a legislative solution is needed to resolve the uncertainty and outline the reasonable actions that service providers can take to avoid liability. CCIA has been at the center of an industry wide attempt to draft statutory language which would seek to balance the rights and obligations of content providers, on-line service providers and users. We have also reached out our hand to other

groups who are focused on these issues. We hope we can all work to a commonly acceptable solution.

FIRST SALE DOCTRINE

If Congress treats a transmission as a distribution, it should consider the applicability in the digital environment of the major exception to the distribution right: the First Sale doctrine. The First Sale Doctrine essentially allows the purchaser of a particular copy of a work to dispose of it as he or she pleases. There are limitations to this exception with respect to two types of works—computer programs and sound recordings. The owner of a particular copy of a computer program or a particular phonorecord of a sound recording may not rent, lease or lend that copy or phonorecord for the purpose of direct or indirect commercial advantage.

These limitations were enacted because of the possibility that reproductions of these works could be done at low cost with minimum degradation in quality. Some have argued that this limitation should be extended to all works in the digital environment. However, CCIA believes that before quick action is taken to implement such a concept, we should take a moment to reflect on the nature and future of this new technology. Electronic distribution of works should not focus exclusively on fears of widespread illegal copying. We should also focus on the potential benefits of digital sales to everyone—copyright owners, distributors of content and users. Congress should be mindful of the fact that, for example, a new emerging market of lawful, authorized distribution systems, which use transmissions as a vehicle for selling copyrighted works, is a valuable tool for everyone.

Now, some may argue, as does the White Paper, that the First Sale doctrine limits only the copyright owner's distribution right, and in no way affects the reproduction right. Thus, it is suggested, the First Sale doctrine does not allow the transmission of a copy of work because presently the transmitter retains the first copy of the work, while the recipient of the transmission obtains a second copy of the work. In a strictly technical sense, this is true under today's technology. However, such an analysis misses the heart of the argument and the importance of preserving an environment where new creative forms of electronic commerce can thrive. Why should we create a legal regime which would preclude a law-abiding citizen from transferring ownership of a copy of a digital work just as he or she currently can transfer a tangible work (a book you buy in the bookstore) to a relative or friend. The copyright holder is already well protected. Under current law it is not legal to make a copy of the original work for oneself and then transfer the original to another.

Therefore, CCIA believes that Congress should give careful consideration to ensuring that the First Sale doctrine is applicable to both works distributed by traditional means and by electronic means as long as the purchaser does not retain a copy of the original after sending it to a third party electronically.

FAIR USE

Although the House bill makes no reference to Section 107 of the Copyright Act, the Fair Use doctrine, CCIA is very concerned with the Fair Use analysis contained in the White Paper. The Paper's almost exclusive emphasis on Fair Use for educational purposes is very troubling. While CCIA certainly agrees that the Fair Use doctrine should apply to educational and non-profit institutions, it has never been the case that Fair Use is limited to or focused exclusively on non-commercial uses. Throughout the narrative of the White Paper there exists a tendency to cite Supreme Court cases for the presumption that commercial uses are unfair. Yet, the Supreme Court has moved far away from that presumption as indicated in the recent cases *Campbell v. Acuff-Rose* and *Fogerty*.

CCIA is even further alarmed by the claim in the White Paper (page 82) that "it may be that technological means for tracking transactions and licensing will lead to reduced applications and scope of the Fair Use doctrine." The Fair Use doctrine has a long-standing history in the United States and we would ask that the Congress keep close watch to ensure that the integrity of the Fair Use doctrine is not disturbed deliberately or inadvertently. The applicability of the Fair Use doctrine is just as important to digital works as it is to analog works.

PROPOSED NEW SECTION 1201 OF THE COPYRIGHT ACT

The new chapter 12—Copyright Protection and Management Systems—raises some additional concerns for CCIA. Although CCIA wholeheartedly supports attempts to prevent piracy of copyrighted works, we are concerned about the scope and consequences of Section 1201, circumvention of copyright protection systems, as drafted. The goal of the proposed section is to prohibit the importation, manufacture

and distribution of devices that circumvent a system or process that prevent illegal copying of protected works. While the goal of preventing illegal copying is laudable, specific implementation of proposals to advance the goal should not be so broad as to swallow other equally important goals of the Copyright Act.

Not all copies are infringing copies. If a firm were to develop an encryption technology that prevented the making of copies, a system or device which was used to circumvent such encryption technology for purposes of making a backup copy permitted under Section 117 might well run afoul of the new Section 1201. Also, appellate courts in several circuits have excused intermediate copying when the purpose of the copying was to achieve interoperability.

Responding partially to the concerns of CCIA and others, the Administration indicated that section 1201 would not prohibit an anticopying circumvention device "primarily intended and used for legal purposes." This, CCIA believes, is an unfortunate and inadequate answer. A device intended to unlock a lock-out mechanism or encryption system could have both a lawful and unlawful use depending on the intent of the actor. Technology is neutral in that sense. Thus, even if the device would, in fact, be used for a number of lawful purposes, it could not be known in advance of its manufacture whether it would be used "primarily" for lawful or unlawful purposes. This is especially important as the language of Section 1201 focuses on the "primary purpose and effect" of the system.

The Subcommittee should also be aware that Section 1201 changes the standard for contributory infringement liability established by the Supreme Court in *Sony v. Universal City Studios*. The court found that a copying device which has a substantial number of non-infringing uses is not subject to contributory infringement liability and therefore shields the manufacturer from suit.

Finally, many advocates of Section 1201 have noted its reference to "without the authority of the copyright owner or the law." Thus, supporters of the provision as drafted argue that Fair Use could be claimed. CCIA begs to differ—the Fair Use doctrine applies not to the act of disabling or circumventing but to the copying of the targeted work. The ability for many "Fair Uses" by "Fair Users" would be eclipsed at the outset.

We urge the Subcommittee to take a very close look at this provision and to make the substantive changes that are needed so as to ensure that it addresses only the stated goal which is to prevent illegal copying.

INTERNATIONAL DIMENSION

At this very moment, Mr. Chairman, the World Intellectual Property Organization (WIPO), the principal international body responsible for drafting and administering international copyright norms, is meeting to discuss most of the issues contained in H.R. 2441. According to CCIA's representative in Geneva, the Administration is forcefully advocating to WIPO the recommendations of the White Paper, without any mention of possible problems related to it. The fact that Congress has not acted is not inhibiting the Administration from representing its legislative proposals as the U.S. Government's position.

As you can gather from this testimony, CCIA believes that many of the Administration's recommendations are either fundamentally flawed or in need of substantial redrafting by Congress. Yet, the Administration is lobbying member governments of WIPO to move as quickly as possible to a full diplomatic conference, perhaps as early as September 1996, to conclude a new international copyright treaty on digital issues, as well as other traditional issues. CCIA is very concerned about this expedited process. CCIA believes that a thorough Congressional examination of H.R. 2441 is critical to ensure balance and an acceptable outcome for all. Congressional deliberations should not be driven by the overly zealous international agenda of the Administration. We hope the Subcommittee will fulfill its key oversight role and prevent any premature adoption of an international digital agenda before a full and comprehensive domestic debate.

Mr. MOORHEAD. Ms. Munder.

STATEMENT OF BARBARA A. MUNDER, SENIOR VICE PRESIDENT, THE MCGRAW-HILL COS., INC.

Ms. MUNDER. Good afternoon.

I am here today as chair of the Information Industry Association, representing 550 providers of contents, telecommunications, and other infrastructure components, online services, and software.

Thank you, Mr. Chairman, for addressing these important issues in this bipartisan bill. McGraw-Hill Cos. and all IIA members have a significant stake in the development of the NII CMI. We are in the business of providing global customers access to diverse and useful information content.

Turning raw data into valuable information requires an investment of human and financial capital. Content businesses cannot give away product for free and continue to create new information products.

We agree with this bill's sponsors, the administration, the Copyright Office, the Working Group on Intellectual Property, and many other witnesses: The Copyright Act has worked well and doesn't need to be significantly overhauled. It has encouraged the creation and public dissemination of information, educational materials, and entertainment products.

H.R. 2441 makes minor but important updates to the copyright law to defer infringements and foster online access through innovative information products. Your bill simply extends protection now provided for tangible works to cover those being transmitted in bits and bytes.

H.R. 2441 does not take away any rights from anyone. It provides the necessary legal framework to enable content providers to make available information products over the Infobahn.

While the language and technology we are discussing sounds decidedly 21st century, the precept of this issue is fundamental to society: You don't steal anyone else's property. As children, we are taught not to steal other children's toys; as teenagers, we are taught not to steal others' homework; as college students, we are taught not to plagiarize; and as professionals, we are taught not to steal credit for others' ideas. The issue at hand is fundamentally similar.

Information is at the heart of the NII, but without clarification of the copyright laws, we cannot risk our property in cyberspace, where it is so easily copied, retransmitted, and altered, without our permission or knowledge.

Today, content providers generally only make catalogs or sample selections of works available over the Internet and do not and cannot offer more because the risk is too great. IIA believes that this bill addresses these concerns and strongly supports its provisions with some slight modifications.

Regarding proposed chapter 12, we recognize that we share a role in protecting content from tampering and shoplifting. Advancing technology will play a critical role in providing solutions. It will provide copyright owners the tools to manage intellectual property and users the tools to access and be assured of its authenticity.

Copyright management information, or CMI, is the license plate that will allow travelers on the information superhighway to select their information. CMI provides easy identification of the data source, aids in informal retrieval, provides licensing terms and conditions and pricing information. In short, CMI helps facilitate electronic commerce. Therefore, IIA supports proposed section 1202 which would encourage the further use of CMI and help assure users of its accuracy and reliability.

We advocate that civil remedies and criminal penalties be available to copyright holders when someone removes or tampers with CMI without permission or authority provided by the law and knowingly distributes or imports it for distribution.

Additionally, IIA supports proposed section 1201. Many information providers are employing available technologies to protect proprietary works.

Recently, IIA founded the Digital Contents Rights Management Group, composed of information providers, software developers, and users, to help facilitate the development of voluntary open and interoperable standards for copyright management systems. But this won't help unless the law makes clear that such technologies may not be intentionally disarmed or evaded.

Proposed section 1201 presents the correct approach by outlawing the importation, manufacture, or distribution of any product or device if its primary purpose is to deencrypt or break into the protective envelopes to steal and/or redistribute or intellectual property. This law would not outlaw either legitimate equipment or legitimate uses, nor will it alter the fair-use doctrine.

Just to reference two other key sections, we agree, the fair use doctrine shouldn't be changed at this time and support the CONFU discussions.

Regarding the matter of online liability, IIA notes that online service operators and content providers' interests are converging. We vigorously are working with NIA and at CIC to explore nonstatutory solutions and do not believe this bill should be delayed in the interim.

In conclusion, Mr. Chairman, thank you for the opportunity to express the McGraw-Hill Cos., and the IIA's views. In an increasingly global marketplace, U.S. industry must take advantage of new distribution channels for products and services. H.R. 2441 will ensure that citizens will continue to have access to a world of information resources.

Thank you.

[The prepared statement of Ms. Munder follows:]

PREPARED STATEMENT OF BARBARA A. MUNDER, SENIOR VICE PRESIDENT, THE
MCGRAW-HILL COS., INC.

INTRODUCTION

Good afternoon, Mr. Chairman and Members of the Subcommittee. I am Barbara A. Munder, Senior Vice President of The McGraw-Hill Companies and current Chair of the Information Industry Association ("IIA") Board of Directors. I am pleased to appear before you today to offer the views of both my company and the Association as you consider H.R. 2441, the "NII Copyright Protection Act of 1995."

IIA is the leading trade association of companies that provide and distribute information products and services worldwide. The McGraw-Hill Companies is just one of the many content providers that belong to IIA, whose 550 members also encompass major providers of telecommunications and other infrastructure components, online service operators, and many of the nation's most innovative software producers. These firms are at the forefront of creating, managing and distributing a wide variety of information in nearly every format now imaginable. Our customers include businesses, educators, government officials, libraries and consumers here and abroad.

The McGraw-Hill Companies and its fellow IIA members believe strongly that the creation and communication of information content is essential to a free and democratic society. We have long worked together to advance policy developments to assure that the American private-sector information industry remains vibrant and continues its traditional contribution to this important goal.

A cornerstone of the foundation for our information-rich society is Article I, Section 8 of the Constitution, which empowers Congress to secure exclusive rights for authors to their writings. The reasoning behind this constitutional principle—to promote the progress of science and the useful arts—is as important today as it was over 200 years ago. The reasoning and the principle have been embodied in the Copyright Act of 1976—Title 17 of the U.S. Code—and Congress certainly shares much of the credit for the enormous growth in information products and services that the Act has fostered over the last 20 years. Our copyright laws have set the ground rules that encourage creators of content to provide more information, in greater variety, and more quickly than ever before. This success has not gone unnoticed at the international level. With strong advocacy of U.S. copyright principles by our treaty negotiators, our policies and practices are contributing greatly in formulating sound and effective intellectual property laws around the world.

For these reasons, both the approach and the timing of H.R. 2441 are important. IIA commends the sponsors of H.R. 2441—you, Mr. Chairman, Mrs. Schroeder and Mr. Coble—for introducing legislation that calls for only minimal changes in Title 17. In terms of timing, few in 1976 could have foreseen all the ramifications of the world of high-speed, digital transfer of information, so it is appropriate that the United States adjust some of its laws to address the future that is already upon us. Moreover, the European Union, Japan, and the World Intellectual Property Organization are all advancing new policies for bringing order to the digital world. Therefore, it is important that we now review our copyright laws in order to maintain their basic soundness. IIA believes that H.R. 2441 will generally bring greater clarity and certainty to our copyright laws, so that information providers and users can deal more easily and confidently with the international exchange of digital data.

THE MCGRAW-HILL COMPANIES AND THE NII

The McGraw-Hill Companies provides a good example of how information content providers have worked hard to develop new products and services for the electronic age, yet still feel constrained from contributing even more proprietary data that would aid greatly in realizing the benefits of the National Information Infrastructure ("NII"). Ours is a global information corporation whose business began 107 years ago. We currently employ 14,000 Americans in 42 states and an additional 2,000 workers in 31 other countries.

The McGraw-Hill Companies provides information not only in print form through books, magazines and newsletters, but also over the air by television and satellite; online over electronic networks; and through our software, videotape and CD-ROM products. In short, our information is available instantly, daily, weekly, monthly, annually, and in any medium, format or frequency requested.

Like many of our fellow IIA members, The McGraw-Hill Companies is no stranger to the NII. We began our travels on the information superhighway when most people considered it to be little more than a cowpath. The content of 49 of our magazines and newsletters is now available over various electronic networks, including Dialog, Dow-Jones News Retrieval and LEXIS-NEXIS. Some of our other information products are accessible via various third-party gateways. The McGraw-Hill Companies also operates 17 Web sites, where Internet users can gain more information about our products and services, as well as limited proprietary material, perhaps the best known of which is a careful selection of articles from *Business Week*, available on the Electronic Newsstand.

In general, however, the material that The McGraw-Hill Companies and its information industry counterparts make available directly over the Internet provides only catalogs or sample selections of works. We do not and cannot offer more because there is too great a risk to our valuable intellectual property in an environment where the culture and technology offer so little protection for the rights of content producers. As a result, many of our most popular and successful products—for example, Standard & Poor's real-time analyses of financial information; Shepard's authoritative legal citations; and *Primis*, our electronic custom publishing service targeted to the higher education market—are not as readily available as either we or our customers would like.

Information is literally and figuratively at the hear of the National Information Infrastructure. However, without effective protection, we cannot risk our hard work and investment in cyberspace where it is so easy to copy, retransmit and alter our property without our permission, and often without our knowledge.

H.R. 2441 does much to address these concerns. I will begin my comments on the legislation by referencing section 4 of H.R. 2441, which proposes a new chapter 12 for the Copyright Act to deal with copyright protection and management systems.

COPYRIGHT PROTECTION AND MANAGEMENT SYSTEMS

In the digital world, it is essential that users understand the source and authority of the information they access and pay for. Copyright management information ("CMI") is the license tag that will help travelers on the information superhighway select their information vehicles. Among other things, copyright management information can allow a user to easily identify a data source, aid in retrieval of information, provide licensing terms and conditions, and inform customers of fees. In short, CMI helps bring order to the digital world and helps facilitate the type of high-speed transactions that are essential to advancing electronic commerce. Accordingly, it is critical that users can depend on the accuracy of copyright management information.

For this reason, IIA supports enactment of a new Section 1202 under title 17 as proposed by H.R. 2441. This provision would encourage the further use of copyright management information and help assure users that such information is accurate and reliable. We believe it appropriate that both civil remedies and—as I shall indicate in a moment—criminal penalties be available should anyone without the authority of the copyright owner or the law, (i) knowingly remove or alter any copyright management information, (ii) knowingly distribute or import for distribution copyright management information that has been altered without the authority of the copyright owner or the law, or (iii) knowingly distribute or import for distribution copies or phonorecords from which copyright management information has been removed without authority of the copyright owner or the law. § 1202(b), in section 4 of H.R. 2441.

IIA is also generally supportive of a new section 1201, proposed in the legislation, which deals with efforts to circumvent copyright protection systems. Effective technological protection mechanisms are vital to ensuring the availability of quality content on the NII. Many information providers, including The McGraw-Hill Companies, are already utilizing a number of the current technologies available to protect their proprietary works. Nearly every day, improvements in these software tools are increasing the security that content producers require in order to provide a wide variety of new products and services in digital formats. Moreover, today's digital world has no international boundaries, and levels of protections and sanctions against infringement vary widely in countries across the globe. Consequently, information providers will need to employ these technologies to an even greater extent as the global transfer of information grows.

The importance of copyright protection systems to the information industry, then, cannot be overlooked. Copyright owners must protect their property and certainly share a responsibility in securing their products and services. However, the primary business of content providers is to make information available. For every dollar and minute that publishers spend on trying to stay ahead of the latest hacker or computer virus, less time and money will be available for creating content, and it will be harder to maximize the flow of information in the NII—a goal we all seek to achieve. Partly for this reason, IIA recently has founded the Digital Content Rights Management Group—composed of information providers, software developers and users—to help facilitate the development of voluntary, open and interoperable standards for copyright management systems and thereby bring some stability to the marketplace. However, software developments and agreement on open, voluntary standard will be of little assistance to either information providers or their customers if the law does not make it clear that such technologies are not to be intentionally disarmed or evaded.

The proposed new Section 1201 takes the correct approach. It would prohibit the importation, manufacture or distribution of any product or device, or the offering or performance of any service, "the primary purpose or effect of which is to avoid, bypass, remove, deactivate, or otherwise circumvent, without the authority of the copyright owner or the law," any technological methods which serve to prevent or inhibit violations of the exclusive rights of the copyright owner as enumerated under 17 U.S.C. 106.

As this Subcommittee is aware, however, some groups have raised an issue of proposed Section 1201's compatibility with the fair use doctrine. Although I will refer later to other issues in regard to fair use, I want to speak now to this argument in the context in which it has been raised. Specifically, these dissenters contend that the section is overbroad and could inadvertently prevent the use of devices which are designed or employed for legitimate purposes, even though they could potentially be used or altered so as to circumvent protection systems. A much-used example of these devices is a video tape recording machine, which allows a family to copy videos for later viewing in the home.

IIA agrees with the views expressed on this matter by the Administration's Working Group on Intellectual Property Rights in its September 1995 report on "Intellectual Property and the National Information Infrastructure" (hereafter "the White Paper"). The proposed language allows for the legitimate use of such devices by including the phrases "primary purpose" and "authority of . . . the law." Fears that this language would suddenly outlaw devices used for lawful purposes, such as time-shifting, are overstated and unfounded. Such legitimate uses have been the law of the land since 1984, following the Supreme Court's decision in *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).

The Association sees no reason why a consumer's lawful use of these and similar devices would be threatened by the adoption of Section 1201 as drafted. Quite to the contrary, such guarantees will encourage information providers to place their proprietary content on high-speed digital networks. As a result, more time and money will be spent to make available the type of authoritative, timely and useful information that our customers are demanding, rather than on efforts to further protect information or fight against inventive hackers.

IIA does have one concern with the penalties and remedies section of the proposed Chapter 12, however. As I noted previously, violations of Section 1202 would impose both civil liability and criminal penalties for persons who intentionally alter copyright management information, while contravention of Section 1201 would allow only civil remedies against someone who violates the proposed prohibition against devices that circumvent copyright protection technologies.

Once protection systems are disarmed, it is distressingly easy for the value of copyrighted property to be severely diminished through illegal and instantaneous copying and distribution in the electronic environment. The White Paper addressed this concern in its discussion of *United States v. LaMacchia*, 871 F. Supp. 535 (D. Mass. 1994). It properly noted that criminal sanctions should apply to willful infringements, even where the infringer lacks a commercial motive. Infringement has a commercial impact, regardless of whether the infringers are motivated by misplaced, altruistic notions that all works should be free in cyberspace or by desires for financial gain. The first to be harmed will be copyright owners, but customers will suffer in the long run, as producers are forced to deny or severely limit access to more and more services in order to avoid theft.

Accordingly, IIA proposes inclusion of a provision in the proposed Chapter 12 to impose criminal penalties for knowingly importing or manufacturing any device or offering any service whose primary purpose is to circumvent technological protection systems. In addition, we propose amending Section 4 of the legislation to make clear that penalties for violation of proposed Section 1201 are identical to those for violation of the new Section 1202: fines of not more than \$500,000 or imprisonment for not more than five years, or both. Such changes would send a clear message to those who would make it their business to aid and abet theft of intellectual property that such behavior cannot be tolerated. More importantly, adoption of this conformity would help assure that copyright management information and the systems that facilitate its use are more widely adopted and available as part of the new infrastructure, to the benefit of both information providers and their customers.

NEW DEFINITION OF PUBLICATION

Protection against tampering with either CMI or copyright protection systems is only part of what copyright owners require in order to become full participants in the National Information Infrastructure. Equally important are other clarifications of the Copyright Act included in H.R. 2441.

IIA supports Section 2 of the legislation which proposes amendments to 17 U.S.C. 101, 106(3) and 602 to clarify that a distribution of copies can be effected by transmission. Further, this section of the legislation would make clear that a transmission of a work to the public can be a publication under Title 17 and that unauthorized transmission can constitute infringing importation. These proposed changes are modest but necessary clarifications of Title 17 for the digital world.

Nevertheless, the Association would raise two concerns about the implications of this change. First, IIA is troubled that materials intended only for dissemination to a narrow or restricted group may nevertheless be considered to have been published under the copyright law and therefore subject to the claim that the owner's exclusive rights are limited through the broader application of fair use. In addition, without further clarification of Section 2, information providers may find it necessary to go through the tremendous expense of depositing large or expensive amounts of proprietary digital data with the Library of Congress, if they are inadvertently deemed to be published by virtue of being transmitted.

In outlining these concerns, we believe it is important for the Subcommittee to understand the wide variation in purpose and intended use of certain types of data that copyright owners transmit even now on a fairly regular basis. For example, information prepared by publishing companies for consulting reports and reports assessing the status of financial markets can represent significant investment on the part of the provider, although the value of this information may be limited to a select group of users. In addition, such material may contain trade secrets, confidential information or informal communications, the broader dissemination of which could cause substantial economic harm.

This issue becomes particularly problematic when viewed in the context of 17 U.S.C. 407. That section requires the copyright owner, or the owner of the exclusive right of publication of any work published in the United States, to deposit two copies of the work with the Copyright Office for the benefit of the Library of Congress. Potential uses of these works by the Library and its customers raises great concern among the providers of the type of data I have just described.

Section 704 of the Copyright Act permits the Library of Congress to retain these works for their collections or transfer them to other libraries. Unless limitations on the Library's use of this information are clear, the result could be commercially damaging distribution of electronically transmitted information to the general public. Some information providers could see their works—especially those provided at high cost but with a limited customer base—made available widely enough to undermine a fair return on their investment. The incentive for content owners to continue producing these types of works would then be eviscerated.

Second, wholly apart from the question of the Library's potential uses of valuable, narrowly disseminated or confidential material is the issue of the burden and expense of providing the required deposit copies. Many databases are updated regularly with new copyrightable material, and each new update can be considered a new copyrightable work subject to deposit. Obviously, a requirement that each be deposited would place an enormous burden on content providers. It is also questionable whether, in every case, the Library of Congress needs to obtain this material through mandatory deposit in order to fulfill its responsibilities to Congress and the Nation.

The Association proposes to work, as appropriate, with Congress to address this issue through statutory language or legislative history and with the Copyright Office through new regulations relating to the deposit of electronically transmitted data. We believe that practical solutions can be found to assure the reasonable availability of electronic data to the Library and its constituents without unfairly burdening information providers with mandatory deposit requirements for the many thousands of works that may be brought under the new definition of publication.

Fortunately, a partial model for solving this problem already exists in the form of appropriate restrictions on the use of CD-ROMs under standard form deposit agreements that can be entered into with the Library of Congress. IIA and its members were instrumental in reaching this practical solution in the area of CD-ROM deposit and use guidelines that neither threatens providers nor denies access to library customers. Similarly, careful crafting of legislative language and administrative regulations may prove to be the best solution for providers of electronically transmitted information.

FAIR USE

As noted in my introductory comments, Congress has long recognized that copyright laws must be written broadly in order to maintain the necessary flexibility that information providers and their customers require to meet changing marketplace demands. This same broad approach is reflected in the fair use provisions contained in Section 107 of the Copyright Act. IIA commends the bipartisan sponsors of H.R. 2441 for consistency in their minimalist approach by avoiding the creation of new fair use exceptions in the context of this legislation.

The question of what constitutes fair use of the creator's exclusive rights is always an area of contention when copyright revisions are considered by Congress. No one—at least of all those of us in the business of providing information—wants our society to devolve into segmented classes of information "haves" and "have-nots." However, ensuring that those who cannot afford to pay for information nevertheless have access to it is a broader societal responsibility, not one that should be borne primarily—let alone exclusively—by copyright owners.

In IIA's view, the current, vociferous push toward expanding fair use is little more than an attempt to create a new set of "user rights" that would place the burden of facilitating universal access to information resources solely on the shoulders of copyright owners. The fair use doctrine was never designed to carry this burden.

I would point out that the White Paper addressed the issue of fair use with some thoroughness and emphatically rejected this approach.

It would be counterproductive to place information providers alone in a category with special obligations to fulfill an overall societal need. The building of our national highway system did not translate into demands or expectations that automobile manufacturers suddenly provide free cars to the underprivileged. Neither should content providers—if you will, the manufacturers of vehicles for the information superhighway—be required to bear the sole burden of providing information for free to the general public. Broad expansion of the current, workable fair use exceptions would decrease return on investment for information providers and would thereby diminish the incentive for the creation and distribution of the type of quality content products and services that online customers are demanding. In the end, there will be less, not more, information for all.

The advent of digital technologies has allowed information providers to offer even more products and services in the marketplace. These businesses are best served by providing products and services to as many customers as possible, not by restricting their availability so that customers find them too difficult or too expensive to use. Indeed, in order to encourage dissemination while protecting their information, The McGraw-Hill Companies and others have already begun distributing "electronic samples" of their goods over a variety of networks to enable users to decide whether they want to pay for the privilege of gaining full access to those products and services. In this manner, the information industry is taking steps to meet the new needs of digital customers. Our efforts to continue as responsible and responsive providers can only be enhanced if the user community meets us halfway and shares in encouraging the lawful use of information.

In regard to specific fair use issues, I would remind the Subcommittee briefly of my earlier remarks on the proposed addition of a new Chapter 12 to Title 17. The Association and its members consider provisions to help ensure the viability of copyright management information and copyright protection technologies to be an important part of this legislation. They do not threaten the ability of individuals legitimately to download information for their own personal use. However, if these guarantees are not present, information providers will be loathe to contribute their wares to the flow of electronic commerce.

IIA is also concerned about proposals by some to enact a presumed new exemption to browse material in digital form. Those who insist on this new exemption often analogize to the opportunities for browsing in a public library. Yet the works available in public libraries are those that the libraries have acquired through purchase or donation. As a result, copyright owners are not deprived of the compensation to which they are fairly entitled under the law.

The Association would caution that this apparently innocent attempt to enact a right to browse would have deleterious consequences. A much different situation occurs when information is generally available on electronic networks, as opposed to being placed in public libraries. In order to meet market demands, many electronic databases are designed to derive their value from the ability to browse information. A large percentage of the customers for valuable financial and investment services, for example, make no use of those works other than to browse them. Publishers like The McGraw-Hill Companies invest millions of dollars to create such databases—including real-time commentaries on financial markets for investors and traders—and typically derive most of the return on their investment from charging a fee for the privilege of browsing these services. If this information is suddenly deemed to be subject to some new exception for browsing and therefore potentially available on networks for anyone to view, there would essentially be nothing for my company and many other IIA members to sell. We would have little choice but to devote our resources to other endeavors, the result being that much of this valuable material would no longer be prepared and disseminated.

Finally, Mr. Chairman, IIA has one other related concern: the impact of the legislation on copying by libraries. New and emerging technologies such as scanning allow libraries to copy and digitize works for various purposes without the permission of the copyright owner. However, the legislation is not sufficiently explicit in limiting the scope of a library's transmission of a copy of a work over a network, as opposed to its copying by an individual.

IIA believes that this is an important distinction that must be addressed in the legislation. We recognize that libraries rely on the fair use doctrine and Section 108 of the Copyright Act in order to accommodate individual users. However, the growth and change in the nature of library information networks threatens the protection of copyrighted works. Technology has empowered libraries and their patrons to make multiple copies with great ease, and responsible behavior in this area should be reinforced. The legislation should differentiate clearly between an exemption that

allows libraries to use digital technology for preservation or archival purposes or to provide information to a single user under 17 U.S.C. 108(g), as opposed to an unfair use when such information is supplied to multiple users, at multiple sites, via an electronic network.

Publishers are sensitive to the needs of libraries and other public institutions. The library community is an important customer base for information providers—in terms of both current users and potential new customers. Information providers have established means of working with libraries and their patrons to permit appropriate use of copyrighted materials, and there is no reason to believe that this situation will change.

Indeed, IIA and many other groups of content providers have sought to resolve fair use issues for the digital environment through participation in a series of conferences known as the Conference on Fair Use (or "CONFU"). In addition, we are actively involved in discussions with the Coalition of College and University Media Centers (or "CCUMC"), which is attempting to clarify guidelines for the use of multimedia works for purposes of education and research. We believe that these efforts will prove productive and that copyright owners and proponents of fair use privileges can resolve any outstanding concerns without amendment of the Copyright Act, beyond the clarification suggested above.

ONLINE LIABILITY FOR COPYRIGHT INFRINGEMENT

A number of industry experts have commented on the difficulty of resolving the issue of liability for copyright infringement on digital networks. Even within our own Association, there are differences of opinion as to the extent to which online service providers ("OSPs") should be liable for infringing materials delivered over their systems.

On the one hand, an argument could be made that were an entity does nothing more than provide communications facilities through which flow thousands of messages, it should not be liable to the full extent of the law if those transmissions contain infringing content. On the other hand, we believe that all participants have a responsibility to take affirmative steps to discourage infringement.

Most OSPs have long created their own content as part of their overall service offerings. Many information providers are now providing services online that require them to perform functions similar to those of service providers, including e-mail and discussion groups. As a result, it is becoming ever clearer that OSPs and copyright owners have many common interests. Both parties share a concern that neither they nor their users will benefit if digital networks develop a reputation for lawlessness and disrespect for intellectual property. IIA would suggest that the convergence of common experiences and interests may lead to solutions to the problem of liability for online copyright infringement that do not require changing current law.

Development of online industry guidelines that call for posting of notices informing and encouraging responsible use of copyrighted materials is one area in which OSPs and content providers could cooperate without the need for statutory changes. This is not a novel or unduly burdensome approach. An FBI notice currently appears on almost every consumer rental video distributed in the United States. While recognizing that the notice appropriate for the digital environment will be very different from the one appropriate for home video rentals—and must avoid the imposition of formal notice requirements prohibited under the Berne Convention—this is an issue in which all responsible industry members should take an interest. For instance, some OSPs already automatically warn subscribers who are about to post information via their services on an Internet newsgroup to avoid violations of "netiquette." It is no less reasonable that subscribers similarly be urged to obey not only these accepted, informed norms of behavior but also copyright law.

There are other steps which could be taken by industry participants to help assure that infringing activities are minimized in the digital world. Service providers could join ongoing efforts by copyright owners to inform their users about obligations to respect copyright and help enforce the rights of copyright owners. In addition to carrying notices of copyright obligations online in the manner suggested above, OSPs could also undertake public education efforts to make their subscribers and the general online public aware of the nature of copyrighted information as "property," the benefits that all NII participants derive from respecting the rights of copyright holders; and the potential consequences of failure to abide by the copyright "rules of the road." Service providers and content producers can also cooperate in developing procedures to facilitate timely responses to specific complaints that infringing material is being posted by network users and in taking appropriate action against users who chronically violate the law.

IIA and many other organizations are continuing the dialogue about what industry practices are realistic and workable in regard to the digital world, recognizing that many service providers and content producers play dual roles. In the meantime, the Association believes that this issue will require much further thought and discussion before information providers and OSPs can reach agreement. Therefore, IIA does not recommend that action on H.R. 2441 be delayed in anticipation that simple statutory changes will be necessary, or if so, that they will be available immediately to resolve the issue.

DATABASE PROTECTION

As stated in my introductory remarks, the U.S. system of laws and practices dealing with the flow of information has allowed the development of a vibrant information sector. Our industry helps assure that American citizens are the best informed in the world. Yet, today's information marketplace has become truly global; therefore, our policymakers must be aware of developments overseas which, by their very nature, affect the ability of U.S. companies to do business. More importantly, these officials must consider how best to shape our own domestic laws in anticipation of or response to such policy initiatives.

IIA has long followed and commented on efforts within the European Union ("EU") to establish a new sui generis form of protection for databases outside of copyright. As you know, the EU is in the final stages of completing a Database Directive that will require each of its member states to adjust its laws in accordance with the new Directive. IIA is not suggesting at this time that Congress delay consideration and passage of H.R. 2441 to consider the matter of sui generis protection for fact-based compilations of data. Nevertheless, the Association does want to take this opportunity to inform you of some of our concerns.

In general, IIA has come to believe that such laws are necessary in the wake of the Supreme Court's decision in *Feist Publications, Inc. v. Rural Telephone Service Co., Inc.*, 499 U.S. 340 (1991), and other developments. We have commented EU officials for the Directive, which establishes a new, supplemental form of protection for fact-based databases. Nevertheless, our members are troubled by specific provisions in the new law.

One of the Directive's provisions, for example, eliminates any protection for many non-European database producers that deliver their products and services to users in EU member states, unless the producer is physically located in an EU nation or unless the producer's own country has adopted a similar type of protection. Other troubling aspects of the Directive are a term of protection for databases that is quite short in comparison to that afforded copyright owners, and the scope of exceptions to the new right that would be available. Finally, IIA also objects to provisions that potentially could abrogate contracts between database providers and their users relating to the new sui generis right or to a right under copyright law.

Many IIA members already offer database services in Europe, so the Association's attention to this issue is not merely academic. Our members' concerns were heightened when we learned that EU officials this very week are proposing to the World Intellectual Property Organization that their Directive serve as a model for an international agreement on protection of databases. IIA has already communicated with U.S. negotiators to make them aware of industry concerns about these developments. Yet clearly, there is now a major international move to craft a new, supplemental form of protection for fact-based compilations, and we respectfully submit that this development will make it necessary for Congress to address the issue in the near future. Accordingly, IIA will bring to Congress proposals for domestic legislation on the matter of supplemental sui generis protection for databases later this year.

CONCLUSION

In closing, Mr. Chairman, I want again to state IIA's overall support for H.R. 2441. The bipartisan approach taken in the legislation is necessary if we are to continue the American tradition of flexibility in our copyright system for today's international, digital world. My testimony has highlighted the very few additional considerations the Association believes are important for the Subcommittee to review as it continues its work on the legislation. I want to assure you of the willingness of IIA and The McGraw-Hill Companies to work with you on these matters.

IIA commends the sponsors of H.R. 2441 for wisely choosing not to recommend a wholesale revision of the Copyright Act but rather to make only minimal changes in the law. The Association and its members urge the Subcommittee to avoid calls from some quarters to legislate on issues that the bipartisan supporters of H.R. 2441 have eschewed. In some cases, proponents of additional language seek changes

in the philosophy and concepts that underlie American copyright traditions and that go far beyond the appropriately modest changes outlined in H.R. 2441. In others, critics are suggesting deceptively simple changes in statutory language that could have an enormous, deleterious impact on the information industry and its ability to operate effectively in the electronic environment. The sponsors of H.R. 2441 have wisely laid a narrow, corrective course. In other areas, it is best for all participants to seriously explore non-legislative solutions to potential problems. The most important tasks facing Congress are sharply-focused, minor refinements to and passage of H.R. 2441. IIA strongly encourages this Subcommittee to proceed with this work.

Thank you for the opportunity to appear before you today, Mr. Chairman. I will be happy to answer any questions the Subcommittee may have.

Mr. MOORHEAD. Mr. Shapiro.

STATEMENT OF GARY L. SHAPIRO, CHAIRMAN, HOME RECORDING RIGHTS COALITION, AND PRESIDENT, CONSUMER ELECTRONICS MANUFACTURERS ASSOCIATION

Mr. SHAPIRO. Chairman Moorhead and members of the subcommittee, as chairman of the Home Recording Rights Coalition and president of the Consumer Electronics Manufacturers Association, which is a sector of the Electronic Industries Association, I thank you for inviting me to testify.

As a trade association representing the consumer electronics industry, our members account for about 750 facilities in 38 States with about 250,000 U.S. manufacturing jobs, about \$64 billion in annual U.S. sales.

The Home Recording Rights Coalition includes manufacturers, retailers, consumers, servicers, and individuals. It was formed in 1981 when the courts and the Congress were on the verge of outlawing, on copyright grounds, the sale of video recorders.

In 1981, recall, the VCR was a new, marvelous, but very scary product, somewhat viewed as digital products are being viewed today. All now acknowledge that had Congress made this wonderful technology illegal, it would have been a major mistake.

We emphatically oppose H.R. 2441 in its present form. We join others, including Ed Black of the CCIA and the Digital Futures Coalition, who raise concerns about several aspects of this bill, especially the fair-use doctrine, but today I will focus my remarks only on section 1201, the so-called circumvention prevention.

Section 1201 is radical. It would reverse the Supreme Court's 1984 holdings in the *Betamax* case. There the Court held that consumers have a right to private noncommercial home recording.

The *Betamax* case stands for the principle that it is legal for consumers to buy a recording product, so long as it has any commercially significant noninfringing uses. This holding is the Magna Carta that has secured the right of consumers to buy VCR's, and it has certainly created a market that has been beneficial for everyone.

Section 1201 cannot be easily fixed because it purports to outlaw circumvention while not even attempting to define that which is protected.

We supported the 1992 Audio Home Recording Act which limited consumer recording ability because it protected customary fair-use rights by defining and limiting the circumstances in which restrictive encoding can be applied. It also expressly exempted conforming products from lawsuits, and it defined what a product had to do or

not do to confirm, three specific standards against which compliance, legality, and technical compatibility could be measured.

Now H.R. 2441 contains none of these attributes. It puts no limit on when anticopy encoding can be used to take away consumers' fair-use rights. Instead, section 1201 contains a one-sided and fundamentally ambiguous proscription. It simply bans any product or service whose, quote, primary purpose or effect is to avoid, bypass, remove, deactivate, or otherwise circumvent any process, treatment, mechanism, or system which prevents or inhibits the violation of any of the exclusive rights of a copyright owner.

As Soupy Sales used to say, what do we mean by this?

For example, does this apply only, as the white paper suggests, to just black boxes which are clearly designed to defeat particular copy protection signals? If so, it fails to even define either what a copy protection system is or what a black box is or when the use of such a device may be lawful and appropriate.

So a box or even a circuit designed to enable fair-use recording to clear up a blurry picture or to work with one type of copy protection could be banned if it fails to respond to all types of copy protection.

If a consumer needs such a device to make fair-use recordings, as defined by the Supreme Court, how can he or she lawfully obtain one?

Moreover, Mr. Chairman, how can one distinguish between a circuit design in a black box and the identical circuit or lack of a circuit in the VCR or a computer?

If the circuit in question is included in the consumer model VCR or computer or if the VCR or computer lacks the circuitry necessary to comply with the anticopying encoding, is the whole VCR or computer now considered illegal?

Mr. Chairman, as a lawyer I suppose I ought to relish this type of legislation, but as a representative of the business community who believes in avoiding unnecessary litigation, I cannot. And having been part of the home recording debate since 1981, I see no reason to take away consumers' recording rights now, when consumer interest in home recording and VCR's has been shown so clearly to have been of enormous obvious benefit in spurring the production of motion pictures.

Indeed, Mr. Chairman, we understand that some of our concerns over the scope of this provision have also been expressed just this week during the World Intellectual Property Organization meetings which are now under way in Geneva by representatives of the European Community, the United Kingdom, Sweden, and other major participants.

Mr. Chairman, with due respect to the administration, which has tried very hard to address the concerns we have raised, we believe there is only one workable approach to governing devices as to consumer recording practices:

First, define the copy protection technology you wish to protect against circumvention and assure the products implementing this technology and the consumers that use it will not face a lawsuit under the Copyright Act.

Then make sure that the implementation of such a technology is economical and does not harm program content and that rights are

available to it on reasonable terms to both device manufacturers and copyright proprietors.

Then, most importantly, define when and how copyright proprietors can and cannot use anticopying encoding to protect the customary and reasonable fairness rights of consumers.

And then, and only then, prohibit the circumvention of the copy prevention technology that passes these tests.

I want to assure you, Mr. Chairman, of our willingness to work with the subcommittee and with the administration. Thank you for inviting us to testify.

[The prepared statement of Mr. Shapiro follows:]

PREPARED STATEMENT OF GARY L. SHAPIRO, CHAIRMAN, HOME RECORDING RIGHTS COALITION, AND PRESIDENT, CONSUMER ELECTRONICS MANUFACTURERS ASSOCIATION

Chairman Moorhead and Members of the Subcommittee: I am Chairman of the Home Recording Rights Coalition (HRRC) and President of the Consumer Electronics Manufacturers Association (CEMA). Thank you for inviting me today to present the views of the HRRC on H.R. 2441.

CEMA is a sector of the Electronic Industries Association (EIA). EIA includes in its membership the leading manufacturers of electronics origination, transmission, interface, and display devices. CEMA represents manufacturers of television and stereo receivers, video and audio recorders and players, personal computers, multimedia devices, and hundreds of other consumer electronics products. Our members represent about 250,000 U.S. manufacturing jobs and about \$64 billion in annual sales. As the trade association for the consumer electronics industry, CEMA is critically interested in the potential consequences of this legislation for manufacturers, sellers, and users of these products.

The HRRC was formed in 1981, after the U.S. Court of Appeals for the Ninth Circuit issued a ruling in the Sony Betamax litigation—later reversed by the Supreme Court—that would have restricted consumers' fair use rights to record at home and could have prohibited the sales of VCRs to consumers. HRRC includes consumer electronics manufacturers and retailers, consumer organizations, service associations, and others interested in the personal, non-profit use of consumer electronics recording equipment.

HRRC, since its inception, has expressed concern over any legislation that would restrict the rights of consumers to make recordings at home for private, noncommercial purposes. We have evaluated such legislation by asking three simple questions: does it advance technology and consumer access to new technologies? Will it clarify or muddy legal interpretations of consumers' rights? And, most important, does it consider the customary and reasonable recording, viewing and listening practices of law-abiding citizens and their families?

Because H.R. 2441 does not come close to passing these tests, we oppose it in its present form. We generally join in the criticisms that have been expressed by other witnesses over this bill's implications for restricting consumers' ability to make lawful fair use of copyrighted materials. From our specific perspective of caring about technical progress, legal clarity, and fairness to consumers with respect to home recording, however, want to concentrate on the implications of Section 1201—the so-called "circumvention" provision.

First, I want to emphasize that HRRC does not automatically oppose legislation just because it limits consumer home recording in some way. In the 102nd Congress, HRRC supported the enactment of the Audio Home Recording Act of 1992 (AHRA), which restricted the use of digital audio recorders, but in a balanced fashion also provided an exemption from copyright suit for certain recorders and consumer recording practices. In the same Congress we also opposed the so-called "Motion Picture Anti-Piracy Act," on which Section 1201 of H.R. 2441 seems very closely modeled. We argued that this legislation was unduly broad, lacked any recognition of fair use, and would create technical and legal uncertainty, rather than certainty. We were pleased that it never got past the hearing stage.

Unfortunately, we have the same criticisms of Section 1201. We are fundamentally concerned over any legal restriction on "circumvention devices" that lacks any definition of, or even any reference to, a specific technical standard as to what anti-copy technology must be adhered to as a matter of law.

Section 1201 would prevent the sale of any device or product or component incorporated into a device or product whose "primary purpose or effect" is to avoid or

bypass any anticopy technology. It is potentially radical because it would effectively reverse the Supreme Court's 1984 holdings in the *Betamax* case that consumers have a right to private, noncommercial home recording, and that it is legal for consumers to buy a recording product so long as it has any commercially significant non-infringing purpose. This holding is the magna carta that has secured the right of consumers to buy VCRs. It created a market that has been beneficial for everyone.

The Administration's proposal cannot be easily fixed; its problem is generic—it purports to outlaw "circumvention" while not attempting to define that which is protected. This broad, non-specific approach makes it simply impossible to protect the rights of consumers to continue to make legal, fair use recordings at home for private, noncommercial purposes.

HRRC supported the Audio Home Recording Act because it protected customary fair use rights by defining and limiting the circumstances in which encoding that restricted recording could be applied. It contained an express exemption from suit for conforming products, and it defined what a product had to do, or not do, to conform, through a technical standard against which compliance could be measured.

Before adopting the Audio Home Recording Act, this Subcommittee and the Congress made sure that the technical encoding systems to which digital recording devices would be required to respond would operate without degrading the quality of either transmissions or lawful copies. You assured yourselves that the design demands would be reasonable, and the manufacturing expense for compliance would be minimal. And, you inquired into the licensing status of the anticopy technology, so that those obliged to conform would not be at the mercy of those who control technology with which conformance is mandated. The Audio Home Recording Act assured compatibility with existing and future technologies, and compatibility among technologies that could be used to limit recording.

H.R. 2441 contains none of these attributes that promote legal certainty, technical progress, and fairness to consumers. The Administration proposes neither any specific and tested technology nor any limitation, to protect consumers, on its use. Instead, Section 1201 contains a one-sided and fundamentally ambiguous proscription: it simply bans any product or service whose "primary purpose or effect * * * is to avoid, bypass, remove, deactivate, or otherwise circumvent * * * any process, treatment, mechanism or system which prevents or inhibits the violation of any of the exclusive rights of a copyright owner * * *." As Soupy Sales used to say, "What do we mean by this?"

Does this apply only—as the White Paper suggests—to "black boxes" clearly designed to defeat particular copy protection signals? If so, it fails to define either what a "copy protection system" is or what a "black box" is, or when the use of such a device may be lawful and appropriate. So a "box" or even a circuit designed to enable fair use recording, clear up a noisy picture, or work with one type of copy protection could be banned if it fails to respond to all types of copy protection. If a consumer needs such a device to make fair use recordings, as defined by the Supreme Court, how can he or she lawfully obtain one?

Moreover, Mr. Chairman, how can one distinguish between a circuit design in a "black box" and the identical circuit—or lack of a circuit—in a VCR or a computer? If the circuit in question is included in a consumer model VCR or computer, or if the VCR or computer lacks a circuit necessary to comply with a particular anticopy encoding, is the whole VCR or computer now considered illegal? Mr. Chairman, as a lawyer I suppose I ought to relish this sort of legislation, but as a trade association executive who believes in avoiding unnecessary litigation, I cannot. And having been part of the home recording debate since 1981, I see no reason to take away consumers' fair use rights now, when consumer interest in home recording and VCRs has been shown as clearly to have been of such enormous obvious benefit in spurring the production of motion pictures.

The basic problem with H.R. 2441 is that it would outlaw the "circumvention" of something without defining what is to be protected. The result is a potential Catch-22 that would haunt any recording device, the retailers who would sell them, and the consumers who would buy them. We called this problem to the attention to the Administration, and it did respond, on page 232 of the White Paper, with the assurance that "[t]he proposed amendment would impose no requirement on manufacturers to accommodate any protection systems, such as those required in [the AHRA]" This apparently was included to provide some comfort, but two problems remain: First, this limitation—to the extent it would immunize certain manufacturers from suit for violation of this provision—does not appear in the legislation that is before this Subcommittee. Second, even within the terms of the Administration White Paper, "manufacturer" is nowhere defined. No effort is made to draw the line between a maker of a "black box," which indeed must be manufactured, and the sort

of computer accessory, VCR accessory, or VCR "manufacturer" to whom, presumably, the Administration was trying to give reassurance.

Mr. Chairman, with due respect to the Administration, which has tried very hard to address the concerns we have raised, the HRRC believes there is only one workable approach to governing devices as to consumer recording practices:

Define the copy protection technology you wish to protect against circumvention, and assure that products implementing this technology, and the consumers who use it, will not face suit under the Copyright Act;

Make sure that the implementation of such technology is economical and does not harm program content, and that rights to it are available on reasonable terms to both device manufacturers and copyright proprietors;

Most importantly, define when and how copyright proprietors can and cannot use anticopy encoding, to protect the customary and reasonable fair use rights of consumers; and

Then, and only then, prohibit the circumvention of the copy prevention technology that passes these tests.

In the White Paper, the Administration recognized in note 568 that the approach I have outlined is the right approach for audiovisual recording devices. It encouraged the consumer electronics and motion picture industries to pursue it. This we have been doing, at the request of congressional leaders, with mutual good faith and determination. I hope we can come forward with a proposal very soon.

In the meantime, Mr. Chairman, with all respect I must say that H.R. 2441 is not the right approach, at least for consumer electronics devices that consumers use to record entertainment programming for private, noncommercial purposes. These devices have been a boon to consumers and have created, for the motion picture industry, the largest market it has ever known. To forget about protecting consumer rights, and to introduce uncertainty, ambiguity, and unintended consequences to this market through the application of this overly broad and unclear provision would be a mistake.

I want to assure you, Mr. Chairman, of the HRRC's willingness to work with this Subcommittee and with the Administration. We believe the White Paper is a good faith effort on an important subject and there is much in it worthy of discussion. We are glad to participate in this series of hearings, and again thank you for inviting us to testify.

Mr. MOORHEAD. I hope that the last two witnesses won't care if we delay just a minute or two. Our ranking minority member is going to have a radio show at half past, and I want to give her a chance to ask a few questions.

Mrs. SCHROEDER. Well, I am not going to do that because I don't want to interrupt. I just wanted to apologize and say counsel will be staying here. We will submit written questions. And I am sorry I misguessed the time, but it is a little late to reschedule, so I thank you very much.

I do just want to say one thing, Mr. Chairman, and that is, we have heard a bit today about people being fearful that if they don't couple things to this bill, there won't be any other opportunity to address issues that will be coming up.

And the one thing I want to say about our chairman is, I think this has been the most productive subcommittee in the House or Senate. We have had more bills signed into law. We have taken up many issues and moved a lot of legislation in the last year.

If there is anyone in the industry who can say we have not addressed anything that came here, I would like to know what it is, because I think we haven't said, well, we are only going to do one bill this year, and if you don't have everything coupled to it, this won't happen.

So I really do want to commend you for having done that, and if there are people here who are really worried that if we don't have everything coupled and all in a package at the same time, it will never happen, they don't know this chairman.

Thank you, and we will stay in touch with you.

Mr. MOORHEAD. Have a good show.
Mr. McDaniels.

STATEMENT OF GARRY L. McDANIELS, PRESIDENT, SKILLS BANK CORP., ON BEHALF OF THE SOFTWARE PUBLISHERS ASSOCIATION

Mr. McDANIELS. Thank you, Mr. Chairman, Mr. Boucher.

My name is Gary McDaniels, and I am president of the Skills Bank Corp. We are a small company, but we are a leading developer of educational software and a member of the Software Publishers Association.

On behalf of the Software Publishers Association's 1,100 member companies, I want to thank you for the opportunity to testify about the NII Copyright Protection Act of 1995.

I would like to ask the subcommittee to make my written statement and my testimony today part of the record and to permit SPA to supplement this statement on issues that arise in the course of the hearings.

I founded Skills Bank Corp. 10 years ago, and since then it has grown to employ about 70 software writers, market representatives, and managers in Baltimore. Today Skills Bank software is used to teach basic skills in reading and math in about 13,000 schools around the United States, nearly 25 percent of the middle and high schools in the United States.

We have all heard that the Internet promises to transform our society, and as a former elementary and junior high teacher, I never cease from being excited about how the Internet resources can help students master a difficult lesson. The Internet also promises to even the odds of success for small and medium companies in the marketplace. This is why SPA commends members of the committee for their leadership in sponsoring H.R. 2441.

SPA believes its premises are sound and supports its objectives. SPA has two specific suggestions to improve these measures:

First, to provide more practical and effective deterrence to circumventing technical protection, Congress should consider making the primary purpose or effects test less burdensome for copyright owners and to adjust civil remedies and establish criminal penalties under appropriate circumstances. Second, Congress should clarify that copyright management information is defined as whatever information, if any, the author and the copyright owner decide to use in connection with the work.

The risks of software development are not for the fainthearted, and H.R. 2441 would restore the balance between copyright owners and users. With this balance would come incentives for Skills Bank and other software companies to take the risk necessary to make their best software available on the Internet.

What are these risks? There is risk in investing millions of dollars in creating new software. Since 1986, for example, Skills Bank has spent about \$20 million in research and development, in some years as high as 40 percent of our annual revenues. That, by the way, was a mistake. We almost went under with that one.

There is the risk of software piracy, which has long upset the balance between copyright owners and users and in 1994 caused software publishers at least \$1 billion in the United States alone.

On the Internet, the potential for harm is multiplied by the ease with which pirated software can be disseminated. For example, last January over \$1 million in pirated software was alleged to have been downloaded from an Internet site in less than 1 month.

Third, there is risk of extensive claims of educational and library fair use; that is, use without permission or payment. This could undermine the effort to give our customers more access to our software at a low per student cost. Through software licenses, lab packs, concurrent licenses, even site licenses for entire school districts and States, and in the licensing that we have for home school connection, Skills Bank uses technology as a bridge to carry learning from school to home and back to school again.

For example, Skills Bank will use revenues from its home sales of its next product, the Encyclopedia of Basic Skills, to support lower prices for the schools. By ensuring reliable revenues, innovative licenses like these are important. They are important marketing-driven means to increase public access to computer programs and ensure that some of our children do not become information have-nots.

Finally a word about a measure that is not provided in H.R. 2441, efforts to limit the potential liability of telecommunication service providers for their own direct infringement or indirect infringement by their subscribers.

Because SPA relies on current copyright law, including liability for indirect infringement which protects hundreds of software companies from piracy, it is deeply concerned that any change in existing law could make that fight more difficult or less effective.

For example, in May 1995, a subscriber to an online service sent over 150 unlicensed computer programs attached to E-mail messages, but the online service provider refused to take action against him for this clear violation of the terms of service even after being notified by the E-mail recipient.

On the Internet and other networks, software publishers and telecommunications service providers will be partners, and each should learn to value the contributions the other will make to the success on the Internet. That is why SPA will participate in discussions with service providers.

Skills Bank and other software companies need an updated copyright law to provide the incentive to take the risks necessary to create cutting-edge software on the Internet.

Without the measures now before Congress, it is true that Skills Bank and other software companies will make some software available on the Internet for promotional purposes. But we just could not afford to risk putting our best programs and multimedia works there, and our customers—which are primarily schools and parents—and millions of others would not enjoy the full promise of the Internet and other digital highways.

Congress should take prompt action to enact such reforms because the dramatic growth of the Internet and the consequent development of business practices will not wait for anyone.

Thank you.

[The prepared statement of Mr. McDaniels follows:]

PREPARED STATEMENT OF GARRY L. MCDANIELS, PRESIDENT, SKILLS BANK CORP., ON
BEHALF OF THE SOFTWARE PUBLISHERS ASSOCIATION

On behalf of the Software Publishers Association (SPA), I wish to thank the Subcommittee on Courts and Intellectual Property of the House of Committee for the opportunity to testify today on the National Information Infrastructure Copyright Protection Act of 1995 (H.R. 2441). SPA commends Representative Moorhead, Representative Schroeder, and other sponsors for advancing this important national discussion on the future of the Internet and other interactive telecommunications networks.

While SPA has some suggestions to modify H.R. 2441, its premises and goals are sound, and the bill will provide software developers with the incentive to create copyrighted works for businesses, homes, and schools. In particular, SPA supports the following objectives of H.R. 2441:

To confirm that transmissions of computer programs may be protected as distributions of copies to the public;

To prohibit the importation, manufacture, or marketing of so-called "black boxes" for circumventing technical protection for computer programs; and

To prohibit removal or alteration of copyright management information—the equivalent of digital "title pages."

These measures to amend the Copyright Act of 1976 are needed to maintain the balance between copyright owners and users because the Internet is making major changes in the way software developers and publishers provide their copyrighted works to businesses, homes, and schools. SPA urges Congress to keep its gaze fixed clearly on the limited measures proposed by H.R. 2441, and not on "phantom" legislation devised by some opponents whose real dissatisfaction lies not with the bill, but rather with commonly accepted provisions of the current Copyright Act.

SKILLS BANK CORPORATION—A LEADER IN EDUCATIONAL SOFTWARE

My company, Skills Bank Corporation, is a leading developer and publisher of educational software, specializing in focused training in reading, mathematics, language, writing, and study methods. In just ten years, Skills Bank has grown from an idea to about 70 employees, among them software writers, quality assurance testers, marketing representatives, and managers, in Baltimore, Maryland. Despite its small size, Skills Bank software is used today at almost 13,000 sites, representing nearly 25 percent of middle and high schools in the United States. Skills Bank's next product, the *Encyclopedia of Basic Skills*, will focus on "the home-school connection"—using technology as a bridge to carry learning from school to home and back again.

SPA MEMBERSHIP—A POPULIST PROFILE OF THE SOFTWARE INDUSTRY

Skills Bank is a longtime member of the Software Publishers Association (SPA). SPA is the principal trade association of the personal computer software industry, and is committed to protecting the intellectual property and promoting the interests of the computer software industry. SPA has over 1,100 member companies, including almost 300 companies in California alone, including these prominent software developers and publishers:

Business software companies Borland International, Novell, Symantec, Peachtree Software, and Adobe Systems;

Internet communication company Netscape Communications;

Computer hardware companies IBM Corp., Apple Computer, and Silicon Graphics;

Consumer software companies Brøderbund Software, Intuit, Spectrum HoloByte, and LucasArts Entertainment; and

Education software companies Chancery Software, Jostens Learning, and, of course, Skills Bank.

With annual revenues under \$10 million, Skills Bank is representative of SPA members and the software industry as a whole. In fact, a recent survey of over 800 U.S. software companies found that 85 percent had annual revenues under \$10 million, and that 50 percent has annual revenues under \$1 million.¹ "Like Skills Bank, these software companies are very entrepreneurial, with nearly 60 percent setting out to establish new markets—like the Internet."²

¹Price Waterhouse LLP, 1996 Software Business Practices Survey, p.38. The findings were consistent with a smaller survey conducted by SPA late last year.

²*Id.*, at 34.

THE OPPORTUNITIES AND CHALLENGES OF DIGITAL HIGHWAYS

We have all heard that the Internet promises to transform our society. As a former fourth grade teacher, I never cease being excited about how Internet resources can help students master a difficult lesson, or inspire them to share their curiosity with children thousands of miles away. When that happens, I am glad that my company's software plays a part in teaching the basic skills to open their minds.

As president of Skills Bank, I have more modest hopes for my business. By almost any measure, Skills Bank is a small company, but on the Internet all that matters is the quality of your software and your service to consumers. The digital highway promises to even the odds of our success in the marketplace, free us from shrinking retail shelves—which increasingly only make room for mass-market titles—and help keep the barriers to entering new software markets low enough for start-up companies.

This promise is reinforced in a recent report by CommerceNet, a nonprofit corporation to facilitate electronic commerce. A recent survey found that 24 million people age 16 or older in the US and Canada had access to the Internet, and that 18 million had access to the World Wide Web, the popular Internet graphic interface. The survey found that total Internet usage now exceeds that of on-line services such as America Online, and is approximately equivalent to playback of rented videotapes.³ According to the survey, the two most popular uses were sending electronic mail (65 percent) and downloading software (31 percent).⁴

To realize their full promise, the digital highways will need an abundance of cutting-edge software. Telecommunications networking software operates servers in offices and schools. Internet browsers and search engines search thousands of linked computers—including Congress's own THOMAS legislative database—and authoring tools to create vivid graphics for World Wide Web home pages. Content-based multimedia works for recreation and education—some of them from Skills Bank—help us pass the time or learn something new.

Software companies are rushing to meet this burgeoning consumer demand for software. Nearly 50 percent of software companies surveyed expected to use the Internet for product demonstration or marketing in 1995—a major increase from the previous year, when less than 20 percent were doing so.⁵ But the Internet alone is not enough for Skills Bank and other software entrepreneurs to succeed—or for our customers to enjoy its full promise. To keep up with consumer demand and our competitors, Skills Bank has since 1986 spend \$20 million in research and development—sometimes as high as 40 percent of our revenues.

Companies like Skills Banks need a strong copyright law to protect that investment. Article I, Section 8 of the United States Constitution gives Congress the power "[t]o promote the Progress of Science and the useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." This Constitutional purpose is embodied in the Copyright Act of 1976, which provides an incentive to create by giving authors and other owners of copyright certain rights in computer programs and other literary works, among them the exclusive rights to authorize reproduction, adaptation, and distribution to the public, subject to some limitations.⁶

That investment is chronically undermined by losses from software piracy, a form of copyright infringement involving the illegal duplication and distribution of software without permission of the copyright owner.⁷ One out of every five consumers recently surveyed admitted that they had copied software from friends at work or school.⁸ The annual SPA Global Software Piracy report estimates that over \$1 billion in business applications alone were pirated in the United States in 1994 from all sources, including bulletin board services (BBS) and the Internet. According to

³ Executive Summary, CommerceNet/Nielsen Internet Demographics Survey (Oct. 30, 1995). The CommerceNet Consortium is a nonprofit corporation formed to facilitate the use of an Internet-based infrastructure for electronic commerce. See <http://www.commerce.net>.

⁴ Executive Summary, CommerceNet/Nielsen Internet Demographics Survey (Oct. 30, 1995). The CommerceNet Consortium is a nonprofit corporation formed to facilitate the use of an Internet-based infrastructure for electronic commerce. See <http://www.commerce.net>.

⁵ 1996 Software Business Practices Survey, *supra*.

⁶ Section 106 of the Copyright Act of 1976, 17 U.S.C. 106.

⁷ Section 501 of the Copyright Act of 1976, 17 U.S.C. 501.

⁸ SPA 1995 Consumer Survey.

that measure, one out of four business programs being used in the United States is an illegal copy.⁹

The easy reproduction of computer software, and the far-flung messaging capabilities of the Internet, have shifted the legal balance far away from copyright owners. Whenever software is downloaded or uploaded on the Internet or other networks, an identical and fully functional copy is reproduced on the user's computer—all too often without the copyright owner's authorization. Moreover, multiple copies of this pirate software can be distributed at no incremental cost to other computers around the world. The following examples illustrate this problem:

A fellow SPA member company, id Software of Texas, finds that its best-selling computer games, such as DOOM and DOOM II, are routinely pirated on the Internet—even though id has offered demonstration versions for trial use at no charge.

One suspected bulletin board service had more than 100,000 separate files available for downloading, including many popular computer programs, and received more than 4,000 calls daily from 14,000 paying subscribers in the U.S., Canada, and Western Europe.

May 1995—A subscriber to an online service sent over 150 unlicensed computer programs attached to e-mail messages, but the online service provider refused to take action against him for this clear violation of the Terms of Service even after being notified by the e-mail recipient.

Over \$1 million in pirated software was alleged to have been downloaded from an Internet site—even though it had operated for less than one month when the FBI shut it down.

With examples like these, it is no wonder that a recent survey found that software piracy and copy protection were ranked among the five most important issues for the software industry—up from 11th place the previous year.¹⁰ To deter online software piracy, Congress should recognize that willful copyright infringement on a commercial scale is a crime, even if there is no private financial gain or commercial advantage, and provide law enforcement with the necessary supervision and resources to investigate and prosecute pirate BBS and Internet site operators.

SPA SUPPORTS THE GOALS OF H.R. 2441—A DIGITAL UPDATE FOR THE COPYRIGHT ACT

Companies like Skills Bank need an updated copyright law to effectively protect their copyrighted software on the Internet and other networks. In particular, Skills Bank and SPA supports three objectives of H.R. 2441:

- To confirm that transmissions of computer programs are fully protected by copyright;

- To prohibit the importation, manufacture, or marketing of so-called "black boxes" to circumvent technical protection for computer programs; and

- To prohibit removal or alteration of copyright management information—the equivalent of digital "title pages."

The premises and goals of H.R. 2441 are sound, and provide software developers with the incentive to create copyrighted works for users in business, homes, and schools.

Distribution by Transmission

SPA supports the amendment of Section 106(3) to include transmissions of reproductions within the exclusive right of distribution, and the amendment of Section 101 to define transmission of a reproduction as "distribut[ing] it by any device or process whereby a copy or phonorecord of the work is fixed beyond the place from which it was sent."

H.R. 2441 should help Skills Bank and other software companies take action against unauthorized Internet transmissions. Unlike television and radio programming, many if not all transmissions of computer programs and other works will result in complete digital reproductions being received by users. It is very easy for users to retain complete and perfectly functioning copies of the works they receive, and then to send them to as many other Internet sites as they wish—with potentially significant harm to the copyright owner. These circumstances differ significantly from the public performance or public display of copyrighted works via broadcast or cable television, exclusive rights which are subject to statutory limitations in part because they typically cannot be captured and redistributed in digital form.

⁹ 1994 piracy rates and losses estimated in The SPA 1995 Global Software Piracy Report, at 5. The estimate does not include other types of software, such as multimedia and educational titles.

¹⁰ 1995 Software Business Practices Survey, *supra*.

Prohibition of Devices and Services That Circumvent Technical Protection

H.R. 2441 would add a new Chapter 12 to the copyright Act of 1976, of which Section 1201 would prohibit the importation, manufacture, or distribution of any device, and prohibit any service, if its primary purpose of effect is to circumvent any technical means of preventing or inhibiting copyright infringement without the authorization of the copyright owner or the law.

Under Section 1203, any person injured by these circumvention devices and services—often called “black boxes” could bring a civil action in U.S. district court for a number of remedies provided for copyright infringement—injunctive relief, impoundment and destruction of the devices, actual damages and profits, and reasonable attorney’s fees to the prevailing party. Section 1203 would also permit the injured party to elect statutory damages ranging from \$200 to \$2,500 per device, and authorize the court to order remedial modification of offending devices. Finally, Section 1203 would authorize a court to impose triple damages for repeated violations within three years.

SPA supports the goal of this provision, and urges Congress to study whether the “primary purpose or effect” test could be made less burdensome for copyright owners, and whether adjusting civil remedies and establishing criminal penalties under appropriate circumstances would provide practical deterrents against these devices and services.

Software companies distributing copies of their software on the Internet may require software publishers to consider two forms of technical protection—encryption to ensure that transmissions are not intercepted, and copy protection to inhibit serial copying. By prohibiting “black boxes,” rather than mandating standard anti-copying technology, authors and rights holders will have the option whether or not to restrict access or implementation of their software. This will enable them to listen and respond to the desires of consumers in the marketplace, including the amount of serial copying they permit.

Calls for Congress to reject this measure are misplaced. First, H.R. 2441 would not require software publishers to use technological protection. Rather, it gives them additional security if they chose to do so, and their customers continue to license their software. Second, technical protection against copying has thrived for years in the software industry, not only in the form of dongles and other hardware locks for high-priced CAD/CAM applications, but also in the form of the CD-ROM disk, which unlike the floppy disk is still inconvenient and expensive for users to copy.

Prohibition of False or Altered Copyright Management Information

H.R. 2441 would create a new Chapter 12 for the Copyright Act of 1976, Section 1202 which would prohibit the knowing removal or alteration of copyright management information without the authority of the copyright owner or the law. Copyright management information (CMI) would be defined as the name and other identifying information of the author and copyright owner of a work, the terms and conditions for using the work, and other information prescribed by the Register of Copyrights.

In addition, Section 1202 would prohibit the knowing removal or alteration of CMI, and knowingly publicly distributing false CMI, or importing false CMI for public distribution. Unless otherwise authorized by the copyright owner or the law, Section 1202 would also prohibit the knowing distribution or importation for distribution of altered CMI, or the knowing distribution or importation for distribution of copies from which CMI has been removed.

SPA supports the goal of this measure, but urges Congress to clarify that CMI is not mandatory. Rather, CMI should be defined as whatever information, if any, the author and copyright owner decide to use in connection with the work. This modification would be analogous to the pseudonymous and anonymous works implied in Article 15 of the Berne Convention.

Shareware developers already use various forms of CMI to identify their computer programs before releasing them into the Internet. Now, mainstream software companies and groups like the American National Standards Institute and the Platform of Internet Content Standards (PICS), are studying how CMI can be used to identify copies of computer programs.

Critics allege that this measure would prevent them from disabling so-called “active” CMI agents to protect themselves from invasion of privacy. It is true that intelligent software agents could be used, if need be, to recognize CMI, to measure software use on the Internet, and collect royalties for the copyright owners. It should be remembered, however, that there is no privacy interest in copyright infringement, and that Congress would be free to evaluate existing laws on computer crime and privacy, and act if necessary to protect the public.

H.R. 2441 would also make several other changes in the Copyright Act, and SPA respectfully requests leave to make additional comments on these points.

Finally, many criticisms of H.R. 2441 focus on "phantom" provisions that are not proposed by the bill at all, and SPA would like to offer some comment on two of them here—expanded copyright exemptions for libraries and schools, and expanded exemptions from liability for online services and Internet access providers.

Educational and library fair use

Some representatives of schools and libraries have called for expanding "fair use" guidelines—which currently identify "safe harbors" for schools and libraries to reproduce and distribute books, periodicals, and music without permission—to include digital reproduction and network distribution. As an educational software publisher, Skills Bank agrees with SPA that expanding fair use guidelines to permit digital reproduction and network distribution could dramatically affect the business of hundreds of software developers and publishers who market instructional software for K-12, home, special needs, adult, school-to-work, vocational and higher education.

Software licensing—including lab packs, concurrent licenses, and updated site licenses—provides the best means to meet the desire for public access to computer programs. Market forces have dramatically lowered software prices, and software licenses have become increasingly flexible to accommodate the needs of schools. For commonly used programs, such as word processing programs, where many computers will have the same technology-based program installed, volume discount agreements can save the school district money. Some software publishers even report that schools are now negotiating licenses on a state-wide basis, and asking for significant licensing flexibility for the mere privilege to compete for the business of their school districts.

In my experience at Skills Bank, licensing is a win-win situation for software companies and educators alike. First, by increasing volume for software companies, licensing drives prices down for schools. Second, licensing is flexible enough to embrace the concept of "schools without walls," and I am sure that today's school district licenses will become community-wide licenses to make the most of the "home-school connection." Third—and this is very important—the increases in volume brought on by broader licenses will enable all school districts in the community to make use of the licensed software. This promises to erase the economic inequities between school districts, and ensure that some of our children do not become "information have-nots."

Liability of online service and internet access providers for indirect infringement

H.R. 2441 has no provision affecting the potential liability of online service providers, Internet access providers, and bulletin board services for their own direct infringement or indirect infringement by their subscribers. Because the U.S. district courts are now acting on several cases involving this issue, SPA believes that efforts to alter their liability are premature.

SPA relies on current copyright law—including liability for indirect infringement—to protect hundreds of software companies from piracy, and the software industry faces significant new hurdles in fighting software piracy on the information highway. Moreover, software developers have handled liability for direct infringement by their employees and contractors for years through indemnification and insurance.

A final point is worth making. On the Internet and other networks, software publishers and telecommunications service providers will be partners, and each should learn to value the contribution the other will make to success on the Internet. Therefore, SPA is deeply interested in any change in existing law that could make that fight more difficult or less effective, and would appreciate the opportunity to speak with interested Members of Congress and organizations about such efforts.

CONCLUSION

Congress should take prompt action to enact the reforms proposed in H.R. 2441 because the dramatic growth of the Internet, and consequent business practices—will wait for nothing, even—with all due respect—the Congress of the United States. According to a recent survey, an estimated 24 million people now have access to the Internet, spending about the same time using the Internet as playing rented videotapes.

Without the measures now before Congress, it is true that Skills Bank and other software companies may make some software available on the Internet for promotional purposes or supplemental uses. But we would not have the incentive, and frankly just could not afford the risk, of putting our best programs and multimedia works on the Internet. While our customers—schools and parents—could still license

our software through stores and direct mail, they would not enjoy the full promise of the Internet and the digital highway.

An entire generation of Internet users is forming its attitudes and behavior toward copyrighted works at this very moment. Their respect for the copyrights of others will affect the commercial practices of Skills Bank and other software companies. Constitutional purpose of promoting the progress of science and the useful arts—as well as the Internet—is best served by enacting this digital update of the Copyright Act to provide the incentive for software companies to make their best software available on digital highways.

Mr. MOORHEAD. Mr. Ostfeld.

**STATEMENT OF DAVID M. OSTFELD, VICE CHAIRMAN, IEEE
UNITED STATES ACTIVITIES BOARD, AND VICE CHAIRMAN,
IEEE-USA INTELLECTUAL PROPERTY COMMITTEE**

Mr. OSTFELD. My name is Dave Ostfeld. I am a volunteer, and I speak on behalf of the 230,000 U.S. members of the Institute of Electrical and Electronic Engineers.

I guess we have a lot of vested interest in this particular bill. You may or may not know, the Institution of Electrical and Electronic Engineers is one of the world's largest technical publishers. We earn a lot of revenue out of publishing our works, and we are putting them into digital form, and we are capitalizing, as a result of that earning, to earn more revenues. We are nonprofit, and we use it for nonprofit purposes, obviously.

Second, I represent innovators, inventors, technology transfer people, the heart of what hopefully will be us, as a country and an industry, for years to come. We produce that stuff, and obviously we want to make sure that intellectual property rights, as we move into these new technologies, are properly protected.

We have a vested interest in doing so, and we applaud Congress for wanting to amend the laws, for taking a look at the new technologies that are coming about.

And at that point, my problem is, I have heard everything that was said today, and everything that was said is in such black and white terms.

I decided I wouldn't give my regular pat speech or read it to you; I would just sort of talk to you instead. It seemed like a better idea, because I share the chairman's view, the view that the Internet is one of the most exciting things I have ever seen.

Twenty years ago when I put in realtime computer systems instead of tearing people down as a lawyer, which I do now, I didn't even dream of the kind of thing that the Internet has become and how vital and valuable it is. And so I am going to ask a favor, and that is not to pass the bill in its current form, and I will illustrate why, although I think something like this needs to be passed.

I have given some suggestions on changes to try to strike a balance in what is being—trying to be obtained and what would begin to hurt us. I will give you another suggestion after listening to the folks today.

Certainly we have developed industries—entertainment, publishing, the one I am interested in, and software. We ought to put something in a bill that is fairly revolutionary, as I consider this bill to be, not just a minor change, that permits those people to protect their substantial works when they are being transmitted.

There is no question about it: The developed industries need that protection, and it is vital for them.

But now, we have gotten to this word "transmit" and "transmission," which was so glibly—and I don't mean that pejoratively—put in the bill, because the Commissioner suggested it too.

Let me give you some examples of what the word "transmit" would do in the business side of the world as opposed to the publishing side of the world. Let's take E-mail, for example. We all know what that is. Congresswoman Schroeder told us about her E-mail.

Well, remember under the Berne Convention, all E-mails are copyright protected; they are all works of an author; and when I send those E-mails to somebody else, do you know how easy it is to forward an E-mail? I got a little icon—no problem at all. I forward it to four other people, with my comments on that E-mail, it is copyright infringement, under the bill. But today it isn't copyright infringement.

Let me give you another example in today's marketplace. I just came back from a place called Lumberton, TX, a marvelous town near Beaumont, and they are using distance learning there. Distance learning is basically: You have a teacher in one room and you have students in various facilities who look at television sets and have full interaction with the teacher.

What does this do to that? The teacher writes a lesson or, better yet, shows a poem on the screen. That is a full copyrighted work. The little computers at the remote terminals that paint that picture onto the screen, that is a work reduced. With this bill, that would be copyright infringement, and it shouldn't be.

Let me give you one that is a little past and a little future, but the one I first thought of as I was flying up here last night. If I call my friend Lynn Magid in Pennsylvania, and I read her a poem: "How do I love thee? Let met count the ways," it was a copyrighted poem; it is no problem today.

In just a few years, voice recognition will permit us to have a printed text. So if she has an answering machine and I call that and I read that same poem into the answering machine and that answering machine now gives text copy, it is copyright infringement. I fixed it in a tangible form. I read it, but it got fixed.

Now let me give you the one that worries me the most. You know, we are on the verge of having full interactive television voice and text communication worldwide. We are at not more than 10 years away now. Right now, within an office space of 5 to 10 miles, we are there; the technology exists, and I have seen it.

What happens when two engineers—and let me give you an example: An engineer in Texas talking to an engineer in Mexico who is doing detailed engineering design, and one of the engineers puts up a copyrighted work on a piece of paper to show this other engineer, a text which is an article that includes a flow sheet, a flow sheet from a copyrighted article, OK?

All he wants to do is to discuss the text, but that flow sheet is going to go down to that fellow, and it will be fixed in a tangible form while they discuss it. This bill, as presently written, would prevent that. It would be copyright infringement, and there is no

real way to decipher how we are going to take care of that at this time.

Thus, I would recommend that on the transmission part of this bill we show a little more in the way—of a conservative nature in defining “transmit” or, better yet, tailor it for those industries that need that protection right now. And you have certainly heard them eloquently state how badly they needed that protection. And certainly the publishing industry is one of them, and I want that protection, too.

What I am concerned, I guess—and I guess Jack put it best. He said: “you know, we don’t know the dimensions and the scope and the direction of our information highway.” It seems a little silly to put up guard rails before you know where the road is going to be. The guardrails could end up across the road instead of right along the side to keep us from falling off. So I am a little worried that we go real slow in this area.

Let me speak about one more area because I know my time is running out. I timed it for 5 minutes, but I got eloquent—initially. I am also concerned about something else. We seem to be losing our trust in ourselves, and I am speaking especially about the fact that we seem to have a bill that for the first time outlaws a technology. Instead of outlawing certain acts that are illegal, we are outlawing a technology, and I think that is wrong.

We are a leader in that technology, by the way, and I am sure that some of our trading partners will just applaud like crazy the fact that we say “no, no”, we are out of that business of encryption, shut it down.

What we should do, I think, instead is look at the acts that really are criminal acts. We encode entertainment, our music. No, we shouldn’t unwrap; I agree with that wholeheartedly; but we shouldn’t let that bill under that guise permit people to disguise data that should be looked at, nor should we permit people who don’t care about our criminal laws but who understand the technology will progress anyhow be able to prey on us because we believe our law protects us from such decrypting.

So I would suggest—I have given you some suggestions in here for changing the text to permit the encryption industry to be sustained as a viable industry.

Thank you very much. I would be happy to answer any questions.

[The prepared statement of Mr. Ostfeld follows:]

PREPARED STATEMENT OF DAVID M. OSTFELD, VICE CHAIRMAN, IEEE UNITED STATES ACTIVITIES BOARD, AND VICE CHAIRMAN, IEEE-USA INTELLECTUAL PROPERTY COMMITTEE

I am pleased to testify on behalf of the Institute of Electrical and Electronics Engineers-United States Activities (IEEE-USA). The IEEE United States Activities Board promotes the career and technology policy interests of the 230,000 electrical, electronics and computer engineers who are U.S. members of IEEE.

IEEE-USA appreciates the opportunity to present its views on the National Information Infrastructure Copyright Protection Act of 1995 (H.R. 2441). We hope to contribute a unique perspective to the discussion of copyright and the National Information Infrastructure (NII), since the IEEE-USA Intellectual Property Committee, who prepare this testimony, is made up of practicing engineers, entrepreneurs and intellectual property attorneys who are U.S. IEEE members with expertise in the field. Additionally, it should be noted that the IEEE is also one of the world’s largest technical publishers and has a great interest in seeking enactment of appropriate

laws with respect to intellectual property and the NII. For the last three years the IEEE has begun to publish scores of valuable technical information on CD-ROM and over the Internet. In the last year, IEEE's World Wide Web Home Page has greatly expanded. Technology has enabled IEEE to publish magazines, technical journals, and conference proceedings electronically. These publications all have valuable information contained within them. There is no question that we believe that strong intellectual property laws are essential to the future success of the NII.

Likewise, one of IEEE-USA's goals is to assure that the expression of our members' ideas continues to be protected—whether it is in written or electronic form. Our members are inventors, software developers and disseminators of valuable technical information. They deserve to receive the best possible intellectual property protection in order to maintain their own economic stability. We therefore applaud Congress for recognizing that present laws may not be appropriate for protecting one's intellectual property, in light of the many changes in technology.

FAST MOVING TECHNOLOGY

However, we believe that Congress should move very cautiously before implementing such legislation as H.R. 2441. It is not enough to merely recognize that new laws may be needed to be applicable to present day technology. We believe that this legislation, like the NII White Paper on Intellectual Property, may not have taken into account technologies that either have not yet been invented or technologies that have been invented but have not been introduced into the marketplace. We caution Congress to avoid enacting legislation that may not be applicable to emerging or fast-moving technology.

The NII as we know it today consists of the Internet which facilitates electronic mail, world wide web, telnet and other functions. These functions allow access to computers throughout the world. The technology associated with world wide web is relatively new but in the last year has greatly improved. The use of audio and video are now available over the Internet and are moving in the direction of video conferencing with full interaction including on-line document review through the Internet.

These are all very exciting technologies that will change the way education, entertainment and business is conducted. Although we can see the direction that the Internet is headed, we must recognize that the Internet is only one part of what the NII will be. That is why IEEE-USA believes that we must move slowly and analyze the language used in this or any future legislation to minimize the adverse effect that severe restrictions could cause. The IEEE-USA urges Congress not to pass legislation that will stifle technology or inhibit the general usefulness and flexibility of the NII.

THE USE OF THE WORD "TRANSMISSION" IN SECTION 2

There is no question that H.R. 2441 is much more narrowly focused than the NII White Paper on Intellectual Property. However, IEEE-USA believes that there may be some serious problems caused by the four occurrences of the words "transmission" and "transmit" in Section 2 of the bill.

While one might argue that these are minor changes that reflect an electronic publication rather than publication of hard copy, we believe that the use of the word "transmission" and its ramifications should be looked at more seriously. Specifically, Section 2(b)(2) of H.R. 2441, would change the way in which users of the Internet have been conducting business for a number of years.

Let us take for example the known technology of electronic mail. When a sender transmits his/her message, it is implied within this legislation and explicit in the enacting legislation for the Berne Convention that the sender has copyrights to his/her message. Does this mean that if the recipient of an email message responds to the sender with the sender's original message still attached, by using the automatic reply icon (that so many of today's email software applications have), that the recipient will be in violation of copyright law as proposed by this bill? Electronic mail also offers another almost automatic function known as "forwarding." If the sender sends a message to a recipient and the recipient then forwards that message on to several other people, the original recipient will also be in violation of copyright law as proposed by this bill.

An even more difficult situation arises when we view a world wide web page. When the user of world wide web enters a URL or world wide web address onto his/her web browser (application software that enables the user to view a web site), the graphical representation of information is transmitted into the user's computer and for that moment a copy has been made and is fixed in the user's computer. Most web browser software stores or "fixes" a copy of that web site into what is known

as a "cache" file that resides on the hard drive of the user's computer. The purpose of this of course is not to necessarily make a copy of the web site but to make it easier and faster to return to the same web site at a later date. If this particular bill were enacted into law, even casual users of world wide web would clearly be in violation of the law. The mere use of the word "transmission" without qualification may create new difficulties for the users and consumers of what is now the NII.

Another example of how the use of the words, "transmission" and "transmit" may impede one's use of the NII, is found in distance learning. As a result of the advancement of technology and the NII, individuals and companies seeking to improve their skills and knowledge base are increasingly learning from a distance. This fairly new form of education is conducted over the Internet. Courses can literally be taught over the Internet. Even interactive seminars are held. The information is distributed over the Internet and is received by students or learning institutions linked to the Internet. Under this bill the mere fact that the information was "transmitted," would make these students liable for copyright infringement. As in libraries and in schools, there should be an exemption of fair use for the act of learning at a distance.

Presently, it is not copyright infringement to go to a library and browse through books (hard copy). However, under this bill it would be infringement to browse through information on the world wide web. The act of browsing on the world wide web will by definition be a "transmission." If browsing for information becomes a copyright infringement, this will greatly diminish this country's research abilities.

Within five to ten years, the NII may be even more dramatically impacted by such legislation. How will parties have interactive communication if one of the participants wants to show a rightfully possessed copyrighted document to another participant at a remote location using the NII? The mere acts of scanning the document, so that it can be transmitted, and then transmitting the document would be an infringement of copyright under this bill.

We offer these illustrations to emphasize that Congress should be implementing laws that will protect individual's intellectual property rather than stifling innovation and hampering the use of the NII or innovation. IEEE-USA feels that one possible remedy to this concern is to limit the word "transmit." We have attempted to do this in our attached amendments to the language of the bill.

SECTION 1201. CIRCUMVENTION OF COPYRIGHT PROTECTION SYSTEMS

As one of the world's largest publishers of technical material, we realize that without a copyright protection system in place we would conceivably stand to lose a great deal of IEEE's intellectual property revenue. The technology that is presently available allows users to reproduce material with great speed and accuracy. Without a copyright protection system in place, hundreds even thousands of copies of IEEE's intellectual property could be reproduced and disseminated for free throughout the world.

However, IEEE-USA believes that Section 1201 will have a deleterious affect on the advancement of technology and is too broad in its provision of the necessary intellectual property protection for IEEE and others. Section 1201 will impede "legal" copying or legal forms of reverse engineering of computer programs as defined by the 9th Circuit Court of Appeals in *Sega v. Accolade*. Copying a computer program for the purpose of interoperability was defined by the 9th Circuit, as well as two other U.S. circuit courts, as legal fair use as long as the copying does not result in a competing product. Frequently engineers must reverse engineer software or hardware to understand how it works so that they can write a different piece of software that will operate on that particular system.

If the language in Section 1201 is enacted in its current form, it could have a devastating impact on the advancement of NII technology. For the NII to work effectively all software and hardware will eventually have to be able to talk to the other. If this is to occur the software and hardware systems must be compatible and interoperable. We urge Congress to revisit this issues.

IEEE-USA also wishes to point out that under Section 1201, an organization could conceivably take government data, that was once available to the public, and republish the information. Once it was published this organization would hold the copyright to this information, as a compilation, and lock up this data using a copyright protection system. If the original data was not easily accessible, the general public would be deprived of this information that was once available to them. Under Section 1201, this copyright protection system could not be circumvented, thereby making government data, paid for by the U.S. taxpayer, inaccessible to the public even under the Freedom of Information Act (FOIA).

Further, the bill tends to inhibit research and testing in this area by private entrepreneurs. Encryption is becoming a big business and testing one's decryption resistance becomes very important as the technology improves and the speed of these devices and computers increase. This bill would discourage such testing by the market place of third parties. We would lose our leadership role in encryption technology if decryption devices are considered to be an infringement of copyright. There are commercial businesses working with quasi-standard encryption methods and new "unbreakable" ones are being developed. The only way to test the strength of encryption technology is to attempt to decrypt the encryption through decryption devices prohibited by this bill.

Legislation should not impede the advancement of technology. Unfortunately, the current form of this bill does just that. Thus we have included changes to redirect the burden of proof to individuals who are unauthorized and intentionally seek access to copyrighted material that is not primarily government data.

Although Section 1203(c)(3)(B)(5) allows for "innocent violations," we believe by the time the judicial phase is reached, it is going to be very difficult for an individual or corporation to explain why their actions in circumventing a copyright protection system was an "innocent violation." Further the innocent individuals or corporations would be enmeshed in law suits with the burden on them to prove their innocence. Innocent decoding should be excused, especially if material that is generally regarded by others as unprotectable by copyright, is found to be protected by both copyright and a copyright protection system.

SECTION 1202 AND THIRD PARTY INTERNET PROVIDERS

While we are aware that there is pending legislation that would exempt third party Internet providers from liability in computer crime, we think it would be appropriate to include language in H.R. 2441 that would expressly exempt third party Internet providers from liability if copyright infringement were committed while using their Internet service. If we do not protect those third party providers, who may be accused of computer and copyright violations or distribution of altered copyright management information, we are going to stifle the NII's ability to progress. Thus we have suggested amendments to Section 1202 to exclude such third parties.

CONCLUSION

IEEE-USA believes that intellectual property protection for the NII must be addressed. We agree that it is time that intellectual property laws change to attempt to keep up with the pace of fast-moving technology. However, as we have pointed out earlier, we must advise Congress that there are technologies that have not yet entered the marketplace as well as technologies that are several years from full development. Technology is changing with increasing speed in this new but very viable field. Therefore, before Congress enacts any broad changes in copyright law, it should look at all of the technological ramifications for present and future technology that we can predict, to minimize the enactment of overly protective laws.

We have illustrated some of the negative impacts that this legislation, in its current form, may have on some of the technologies already being used and that can be foreseen. IEEE-USA is prepared to work with Congress in the future to develop language that will provide strong intellectual property rights for the United States and our members while not stifling the technological innovations for the NII. In an effort to assist Congress, we have included, with our testimony, a list of recommended amendments to H.R. 2441. We believe that these modifications will help to ameliorate some of the concerns that we have posed.

We also encourage Congress to take into account that the NII, as we know it today, is also a learning tool as we pointed out in our illustration on distance learning. Students and instructors must be able to have the freedom to transmit educational materials over the Internet, otherwise we will be wasting the valuable resources of the NII.

We also believe that it is essential to the future of the NII to exempt third party Internet providers from being penalized for the nefarious acts of subscribers. We do not hold the cellular telephone services responsible for computer break-ins—nor should we hold Internet providers liable for other illegal activities that they did not commit. Therefore, IEEE-USA encourages Congress to add language to H.R. 2441 that will exempt third party providers from being held liable for copyright infringement committed by one of their subscribers.

Once again we thank you for allowing IEEE-USA to share its perspective on the NII and intellectual property. These are exciting technological times. Our members are some of the individuals who have developed this technology that we are discussing here today. We do not want to lose the momentum that we have in utilizing

technology to move into the future. We ask that a law be enacted that will protect all of us but not stifle innovation and the future of the NII.

We look forward to working with Congress on these matters in the years to come. At this time I would be happy to answer any questions that you may have.

AMENDMENTS TO THE NII COPYRIGHT PROTECTION ACT (H.R. 2441)

SECTION 2

Rationale

The following recommended changes were made for a variety of reasons. The changes on page 2 line 13 narrow the definition of "transmit." With the current definition, browsing, distance learning, email interactive communication and the like would have been foreclosed solely for having a simple definition. Because there is little room here for great elaboration, only one example will be given. In the case of email, virtually all messages would be subject to copyright under the Berne Convention. Thus, if one is a recipient of an email message and wishes to make a reply to it, automatically attaching the original email, and then broadcasting it to several other people, under the current definition, the sender would commit copyright infringement because he or she would not have a license from the originator of the original email which was appended.

Amendments

Section 2(b)(2): page 2, line 13: add the following language after the word "sent." other than for re-transmissions or for education or for temporary storage, including storage by a provider or for interactive purposes, wherein the works are primarily not for entertainment with the amount of the work transmitted being greater than five minutes or ten pages in length.

SECTION 1201. CIRCUMVENTION OF COPYRIGHT PROTECTION SYSTEMS

Rationale

With regard to the amendments to Section 1201 of page 4, it appears to be overly broad with regard to intent. Technical advancement needs to have latitude to grow and the legislation of this sort would stifle such growth. Thus instead of "primary" (which would be dictated by the market), the words "substantially exclusive" were added together with the words "intended" and "knowingly" to only catch those individuals whose intent it is to circumvent rightful encryption for copyright purposes.

The other exceptions added in line 22 further emphasize this by making sure that this statute is not meant to overrule *Sega v. Accolade* or to permit the hiding of government information under the guise of it being a compilation of information for copyright purposes and then encoding it. The current language would permit what has long been forbidden under the Copyright Statute with regard to government documents encoding. Further, an exception was added because we now operate under the Berne convention where everything could be theoretically copyrightable that is the work of an author without any marking on it. Thus, we did not want to have inadvertent decoding suddenly falling under Section 1201.

Amendments

On page 4, line 14 insert the word "knowingly" after the word "shall."

On page 4, lines 16 & 17 strike out the word "primary" and put in its place the words "substantially exclusive"

On page 4 line 17 add the word "intended" after the word "is" and before the word "to"

On page 4 line 22 after the number 106 add: "for work protected by copyright other than (1) for compilations or works that contain primarily data of a federal state, local or other governmental agency or body or (2) exceptions permitted under law, or (3) works customarily not protected by the owner."

SECTION 1202. INTEGRITY OF COPYRIGHT MANAGEMENT INFORMATION

Rationale

Section 1202 was also changed primarily to protect providers who might not know that the copyright management information had been changed, but who certainly would knowingly distribute or import, i.e., did the act (1) to distribute or import, or (2) ran software which through an error removed or altered copyright management information.

Amendments

On page 5, line 4 strike out the word "knowingly" and replace it with the word "intentionally"

On page 5, line 5 strike out the word "knowingly" and replace it with the word "intentionally"

On page 5, line 5 insert the words, "known by such person to be" after the word "is" and before the word "false"

On page 5, line 7 insert the words, "known by such person to be" after the word "is" and before the word "false"

On page 5, line 10 strike out the word "knowingly" and replace it with the word "intentionally"

On page 5, line 11 insert the word, "information known by such a person to be" after the word, "any" and before the word "copyright"

On page 5, line 12 strike out the word "knowingly" and replace it with the word "intentionally"

On page 5, line 13 strike out the word "has" and replace it with "such person knows to have"

On page 5, line 15 strike out the word "knowingly" and replace it with the word "intentionally"

On page 5, line 17 strike out the word "has" and replace it with the words "is known by such person to have"

SECTION 1203. CIVIL RIGHTS

Rationale

Section 1203 was modified slightly to change language to clarify the test on appeal and to clarify when awards of damages could be made. Further, Section (5) on page 8, starting on line 15 was removed because all of the tests were knowing tests and now intentional tests under our proposed amendments, and therefore there cannot be such a thing as an innocent violation because the standard is knowing and intention to actually commit the wrong.

Amendments

On page 6, line 15 & 16 strike out the words "reasonable cause to believe was involved in a" and replace them with "reasonably found to have caused the"

On page 6, line 25 & 26 strike out the words "involved in the" and replace them with "that has been reasonably found to have caused the"

On page 7, line 5 insert the words "in an action brought under Section (a)" after the word "chapter"

On page 7, line 9 insert the words, "In an action brought under Section (a)," before the word "The" and change the letter "T" to a lowercase "t"

On page 7, line 19 insert the words, "in an action brought under Section (a)" after the word "entered"

On page 8, line 15-20 delete lines 15-20.

Mr. MOORHEAD. Thank you.

The gentleman from Virginia, Mr. Boucher.

Mr. BOUCHER. Thank you very much, Mr. Chairman.

Mr. Black, let me propose a series of questions to you. As was noted in the discussion that we had with Mr. Valenti earlier, the administration's white paper, in the absence of any clearer instruction from the Congress, is now being cited by a number of courts and obviously is beginning to influence the thinking of courts as they resolve the liability questions associated with the online community.

Are you concerned that if the legislation now pending before the subcommittee is enacted into law without addressing the concerns of the online service community and clarifying that liability, that at some point in the not too distant future a court may finally decide that in the circumstance of the *Netcom* case or other cases similarly situated, that direct copyright infringement liability will be imposed, whether or not there is knowledge on the part of the online service provider with regard to the infringement?

Are you concerned about that?

Mr. BLACK. That is exactly a core element of our concern, Congressman. Even under current law, if this bill is not passed, this community of industry feels a great threat.

What I don't think has been said today is that the enactment of this bill enhances and increases the risk even beyond current levels. So it is not level, it increases it.

But even if it were not to pass, there is a high probability that there will be courts out there who will be inclined under current interpretations to move in that direction. And given the nature of the industry, which I haven't attempted to describe in great detail because, frankly, a witness you will hear tomorrow from CompuServe does an excellent presentation on how the industry operates, but when you read that, you will understand how absolutely impossible it would be to apply some of these rules and standards.

Mr. BOUCHER. Would your industry be willing to participate in a process originated and supervised by the subcommittee that would involve your industry, the content owners, other interested parties, whether that be the administration, members of the subcommittee, or staff—that would be designed to lead to a satisfactory addressing of the concerns of the online service community?

Mr. BLACK. Absolutely. We would welcome the opportunity. We have initiated a wide-ranging discussion with many people.

We have frankly, and why we are concerned about this piece moving—we have been relatively rebuffed in efforts to have serious discussions by some elements of the content community.

But we think it is important that all interested, reasonable parties who care and participate and will be affected by changes in this area ought to try to come together and come up with something which we can all support, because, frankly, that is the only way we are going to get our cumulative needs addressed and get legislation through the Congress.

Mr. BOUCHER. And so if the subcommittee were in fact supervising that kind of discussion, that would get up past the problem you have had where the content providers have rebuffed your efforts at serious discussions. Does that state your position?

Mr. BLACK. It would certainly pressure them to the table. It certainly does not guarantee what would be said. We would welcome that.

Mr. BOUCHER. Might be a better way to get a result.

Let me ask you this. Mr. Valenti, during his testimony, said, well, if we insert an actual knowledge standard with regard to content—with regard to online service provider liability, and say that only the providers who have actual knowledge of the infringement or, in some sense, participated directly in the infringement will have liability, then even though he had basically recommended that standard, he said if we do that, who is going to protect the content providers? I mean how are we then going to get our protection?

Why don't you answer that question.

Mr. BLACK. OK. I am actually very glad to, because right now our community, in a number of different ways, does in fact take actions, take reasonable actions, to ensure to notify people who are users of the copyright laws.

There are notices that are given out when you open programs, when you download. You have a series of things which are done as responsible citizens in our community to tell people about the copyright laws and to urge compliance.

But frankly, the real way that these laws need to be enforced is the way they are enforced today, that those entities with the vested interest are called upon to enforce them themselves. That is fair; it is reasonable. They are tremendous beneficiaries, as well we should be, because we are among those. But we are the reapers of the benefit. It is not reasonable to sluff that responsibility off onto a different industry. And frankly, those of us who do care about the integrity of copyright throughout our system and making people believe it is important, there is an irresponsibility which can be created by sluffing it off and letting the content creators not be the principal enforcer. Because it becomes real easy to go to the quick deep pocket right here, and ultimately you don't have to go after the actual infringer; "we will hit the online guys; they will compensate us." That is not in the interest of anyone in the long run.

Mr. BOUCHER. And the way that the content providers could enforce their right is that if we had an actual knowledge standard for the online community, once that notice was provided, once that knowledge was acquired by the online service provider, then the provider would have an obligation to terminate infringing activity.

Mr. BLACK. Exactly.

In the legislation, in which we have put a great deal of effort to try to come up with, which we believe is a balanced piece of legislation, the goal is in fact to say, let us know; if you can determine, with the necessary safeguards, to make sure it is a real violation, and there aren't defenses that are valid, et cetera.

I mean the complexity of the copyright law has to be carried forth and dealt with. But when we find out that real infringement is going on, we can move. We need to make sure that we, however, do not spend the bulk of the time as policemen of half a billion messages that are going on every day. It is not a reasonable task; it is not an effective one; it is not one that can be done nor serves the interest of everyone.

Mr. BOUCHER. It is practically unreasonable to expect you to monitor that volume of traffic on a daily basis, and many sites would have tens of thousands of messages and postings on a daily basis as well.

Let me quickly ask you about two other issues that you had raised and others have raised, and that is, first of all, the doctrine of first sale, which basically today, as applied in current copyright law, says that once a purchaser has acquired a copyrighted document, that purchaser may then dispose of the document as he or she sees fit, whether by gift or subsequent sale.

That, however, would not apply in the online environment under the terms of this bill even if the owner of the computer who receives a document properly bought, properly licensed, and has that document transmitted to him, destroys that originally acquired document at the same time that he transmits a copy of it on to someone else.

So my question is, Why—you are probably—I probably should have asked someone else this, but let me ask you. Give me your

view as to the appropriateness of amending this bill to provide that, in the circumstance I just described, the doctrine of first sale permits the subsequent transmission of the copy, the first one having been destroyed, because at the end of the day only one copy is left.

Mr. BLACK. Yes. I think that is what, frankly, surprises us about the rigidity of this legislation; that in this particular area, there is a solution which seems to me pretty common sense which is not—I reference Jack's comments here—"a mystery wrapped by a shadow inside a paradox." It is easy. We have an easy way to take the current rule and system of operation and just say "if you destroy the one, when you sent it on, you don't keep one, you are covered," OK. It is OK; you are out from under. I have not had it explained to me why that, ensuring that that is the rule, is not a satisfactory solution.

Mr. BOUCHER. Let me ask you the question in a broader context. How important is this?

Mr. BLACK. Oh, I mean, the way the electronic operations of digital copies are made, every computer—I mean you are making a copy of the time, in one sense, of the copy. You are actually making a digital reproduction. And if you are not allowed to do that, the entire nerve center of the system, the capability of the Internet to operate, and other telecommunications networks to operate, disappears. You need to be able to make digital copies, pass it on, move it on.

The concern, I think, when we step back—we wouldn't want somebody making a business out of a lot of infringing copies. We all agree on that. That is not what we want. We don't want somebody to take somebody else's work, misapply it, misuse it, and make a ton of money making a bunch of copies. We can agree on that.

What is missing here: It ignores the technological reality that you have to make a digital copy in that, quote, copy in order to operate the overall network.

Mr. BOUCHER. So for the effective functioning of communications, it is essential that we apply the first sale doctrine in this matter.

Mr. BLACK. Absolutely.

Mr. BOUCHER. I have other questions. I would like to compliment the other members of this panel for their testimony, and I just regret that time does not permit me to explore it with you.

Mr. Shapiro, did you want to say something?

Mr. SHAPIRO. Yes. I wanted to follow up on what you said, because I think what you are suggesting essentially is a balanced or principled approach.

I applaud my colleague from the IEEE who raised some very real world examples of what this legislation would do and how it would affect normal, everyday conversation and commerce in the everyday world of the computer environment, because we represent, through the Home Recording Rights Coalition, retailers and a vast number of consumers who are very technology literate.

We have tried to take a principled approach to examine any piece of legislation that seeks to protect intellectual property, and we apply a three-pronged test. The first prong is: Does it advance technology or the use of technology? The second: Does it promote legal

certainty, or, in a sense, is Congress creating new ambiguous areas, or is it actually creating greater clarity in the law? And the third is: Is it fair to consumers? Which is really a lot of what this is about. And that is how we examine legislation that seeks to expand intellectual property rights.

Mr. BOUCHER. Thank you, Mr. Shapiro.

Thank you, Mr. Chairman.

Mr. MOORHEAD. The gentleman's questions were very good, and I know the time limit. If there are others that didn't get a chance to answer any of those questions who wish to be involved, would you like to make any comments?

Mr. Holleyman.

Mr. HOLLEYMAN. Addressing the question of Congressman Boucher, the test that we have used in looking at this legislation as copyright owners is that we are looking for rights that are no greater or no lesser than those which the law applies today.

Regarding your first sale question, copyright owners have two rights: They have a right of reproduction and a right of distribution. First sale is an exception to the right of distribution.

To the extent that a copyright owner maintains an exclusive right of reproduction, we do not feel that this legislation should be required of us to give up that existing right.

Certainly it is one that we are willing to discuss.

We are not trying to stifle technology, but, again, I think our hallmark of this entire piece of legislation is that we were looking for rights that were no greater or no lesser than we have for works in a tangible form.

Mr. MOORHEAD. Yes.

Ms. MUNDER. I would agree with my colleague, Mr. Holleyman, on that point. But I am, I guess, dismayed to hear that Mr. Black has been rebuffed by content providers, because I assure you, that is not the case.

Content providers do—I am sorry—some content providers, I think content providers welcome your offer, Congressman Boucher, as well as Congressman Goodlatte's, to work with us, and we have been diligently doing so, maybe not at the speed that some would like, but, for example, both the IIA and CIC have had something like five meetings in the last 6 weeks on this issue.

There is an extremely—the online issue, liability issue, is an extremely complex one because of the convergence of who is what at this particular point in time. One of our magazines, Business Week—or McGraw-Hill is Business Week—most of you would think it is a content provider. In the online world, it is in fact both an online provider as well as a content provider. We are at the table, we are willing to discuss these issues, and we are learning from one another. We are being sensitized to the issues, and we think that will be helpful as we move forward.

Mr. BOUCHER. Mr. Chairman, if I could infringe on the committee's time just for another minute, let me say in response to that that the word "rebuffed" in this context means a statement coming from the content owner community that we are willing to talk about these concerns, we are willing to address the interests of the online service providers, but the time frame over which we expect

to do so will be somewhat more attenuated than what the online providers would like.

In other words, the online providers would like to do it now so that an agreement is in place in time for the passage of this bill. The content providers typically have taken the view announced by Mrs. Schroeder, and that is that this is not the time to address those concerns, that they need to be addressed over the longer time frame and come back to this Congress later, whether that be later this year, after this bill is passed, or in the next Congress, after this bill is passed, and in either of those events the leverage of the online community to obtain an appropriate agreement is greatly lessened. And there is the point, and that is what "rebuffed" in that context means.

Mr. Black, did I get that right?

Mr. BLACK. I think you got it right on point, Congressman.

And Bob raised one that I would like to take him up on, see if we can start some negotiation here. He said this legislation should not—they have no intent of moving it beyond current law, in essence, to maintain the status quo of the law, of its balance, and moving it into the digital era.

In that light, I would assume support for changes in several areas, but I will pick one right now, which is section 1201, which creates a standard different than the Supreme Court case, which is the current law in *Sony v. Universal Studios*.

Right there we have a standard of contributory infringement liability which will be changed by this legislative proposal, and if we can agree that we will modify at least that section to make sure we don't overturn a Supreme Court case, in essence, that would be a good first start.

Mr. MOORHEAD. You know, the time is getting late, and I have a series of about eight questions that I wanted to have answered. I hope none of you would object if we give you a copy of the questions and you try to get a response back to us in the next week because we need to get the record completed.

I hate to give you homework after you have sat here so long, but it would be very helpful to the committee if we could get your response in that period of time.

And we haven't had all of our people here to ask questions of this panel, but it is important that we get as much input as we possible can get.

[The information follows:]

QUESTIONS FROM CONGRESSMAN GOODLATTE TO ROBERT HOLLEYMAN, PRESIDENT,
BUSINESS SOFTWARE ALLIANCE

(1) Mr. Holleyman, we have heard a lot about export restrictions on products with strong encryption capabilities may: (1) injure the US economy; (2) hurt US competitiveness; and (3) disable users worldwide from using strong encryption. Is there any empirical evidence to support these claims?

Answer: There are binders and binders filled with empirical evidence. What I would to bring to the Subcommittee's attention, however, are three VERY recent studies:

First, an economic study release this last December by William Hagerty. That study shows that if US export policies are not addressed by 2000 (only four years from now), it will cost the US economy \$60 billion and 200,000 jobs!

A study by the SPA which shows that strong encryption is available from over 500 foreign suppliers worldwide. And,

A study released early this year by the leading US cryptographers stating that 40 bits (the strength USA industry is allowed to export) can be broken trivially and that they recommend 75 bits for strong protection.

I have attached copies of these studies for the hearing record.

(2) I understand the Administration has a proposal that would allow industry to export up to 64 bits as long as a key escrow system was attached. Does this solve the problem? How would it affect domestic use of encryption?

Answer: Congressman, the Administration's proposal does NOT address the problem and we believe it is fatally flawed. Simply put, the Administration would require everyone to have a back door into their computer and to deposit the spare key to that door with a government certified agent. Our member companies simply have not found a market for this product. I will provide the Subcommittee with two letters: (1) one from the leading high-tech industry and the free speech groups opposing the Administration's proposal; and (2) a letter from the leading conservative groups asking Speaker Gingrich to become involved in this critical issue.

(3) Mr. Holleyman, what does this mean for the GII?

Answer: It is widely recognized, even in the White Paper, that to be successful, we must have strong security on the GII. Without such protection the GII will simply be a White Elephant. Whether people are transmitting personal letters, or business information over the GII they need to know it is secure.

The Computer Systems Policy Project

THE GROWING NEED FOR CRYPTOGRAPHY

The Impact of Export Control Policy on U.S. Competitiveness

Study Highlights

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Introduction

As corporations evolve in the information age, highly confidential data must flow over increasingly accessible computer networks. Users of these networks demand the best available cryptographic technologies to secure both data transmission and storage on a global basis. U.S. computer systems suppliers are unable to meet this demand because of government restrictions on the export of necessary technologies. Foreign suppliers are gaining momentum in their efforts to fill this market void created by U. S. regulations.

The Management Advisory Group has analyzed the economic impact of cryptographic technology export controls on the computer industry by focusing on users of information technology. We interviewed over 100 individuals at more than 70 institutions. While this is not a statistically significant interview pool, it yielded results that are broad-based, directional and indicative of important industry trends.

Of the companies interviewed, 95% are multinationals and over one third of these companies are headquartered abroad. Our interview partners based in the U.S. comprise approximately 20% of all U.S. multinationals* on a revenue basis. It also should be noted that multinationals constitute over one-quarter of the U.S. corporate GDP. Their needs define the competitive battlefield for the computer systems industry.

William F. Hagerty, IV
The Management Advisory Group
December 15, 1995

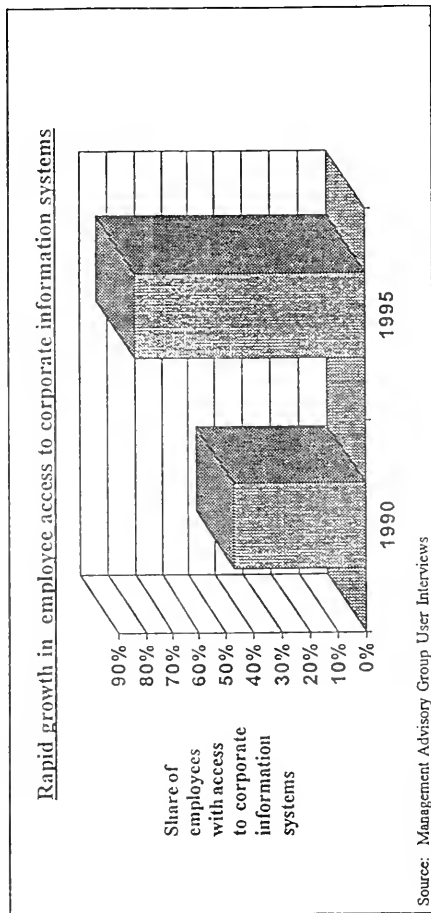
*figures do not include banking institutions

Findings

- U.S. computer systems suppliers cannot fully participate in the global market for secure computing because of export controls established before the advent of high performance computing
- The modern computing environment cannot be protected with mechanical locks and keys. Valuable data must now be secured on open electronic pathways and storage facilities that are accessible to millions of users around the world
- As data becomes more accessible, it becomes more vulnerable
 - Direct financial losses from external system penetrations are increasing
 - Many companies may forego significant revenue and cost saving opportunities as lack of security precludes involvement in electronic commerce
- Thus, global demand for secure computing is projected to explode in the near future
 - to over 60% of system sales to multinationals by the year 2000
- Cryptography is the most cost effective means to address the demand for secure computing
 - easy integration into overall systems is required for cost effective implementation
 - confidentiality will be the fastest growing application . . . and most difficult to export from U.S.
 - ever stronger applications required as computing performance continues to improve
- Less restrictive foreign export controls drive competitive advantage to overseas suppliers
 - basic cryptographic technology is available from overseas suppliers
 - integrated offerings from foreign systems suppliers are being tested today by users
- Significant potential revenue exposure is projected for U.S. suppliers
 - U.S. systems suppliers revenues are projected to reach \$200 billion by the year 2000
 - up to one quarter of these revenues may be vulnerable to overseas suppliers under current export requirements

As employees increasingly are networked on corporate systems, exposure of vital information is mounting

Within corporations: employees at all levels access information in a networked environment

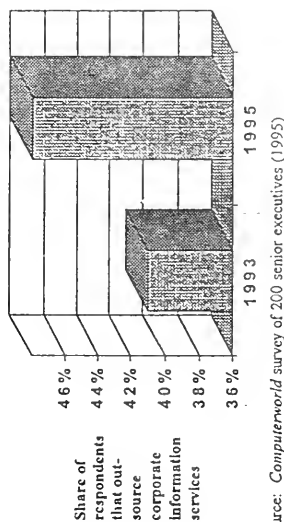


“We have doubled the number of PCs and the number of users on our network over the past four years.”
- U.S. based Multinational

Vital corporate information is further exposed as businesses link outsiders to corporate systems

Beyond traditional corporate boundaries: outsourcing efforts and customer-supplier linkages bring increasing numbers of outsiders onto corporate information systems

Example: Outsourcing of Corporate IS Functions



Share of multinationals with outsiders* access to corporate systems:

~ 90%

*customers, suppliers, joint venture partners

Source: Management Advisory Group User Interviews

"We've been forced to outsource extensively due to our downsizing. We've got contractors that we neither know nor control on our system."

-U.S. based Multinational Manufacturer

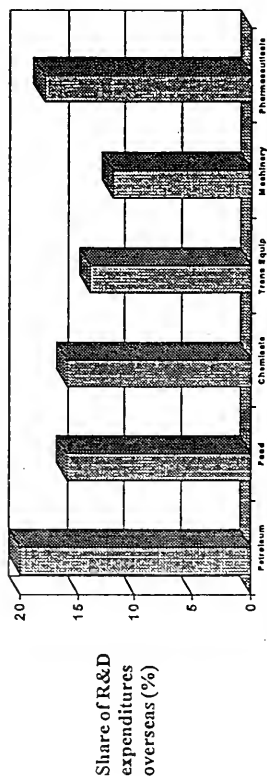
"Our customers want real-time access to their data on our systems. We must deliver."

-Foreign Financial Institution

Information exposure has also become significant on a cross border basis

Across geo-political boundaries: highly sensitive data is generated overseas and must be communicated cross-border in a secure manner

Example : Overseas R&D Expenditures of Major U.S. Industries

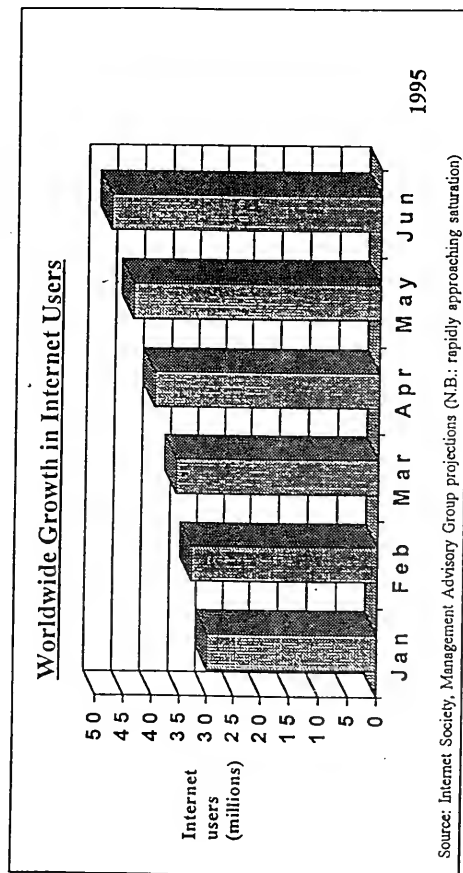


Sources: U.S. Dept. of Commerce (BEA); Pharmaceutical Manufacturers Assn. (1993); Management Advisory Group Analysis

"In our industry, information is the crown jewel. We spend 18% of our revenues on R&D. It must be protected."
-Foreign Pharmaceutical and Consumer Products Manufacturer

"Five years ago, all of our R&D facilities were under one roof. Now we are spread across five countries, with no secure systems in place."
-U.S. Based Pharmaceutical and Consumer Products Manufacturer

Internet development dramatically broadens global exposure of vital corporate information



"The net as a whole is growing by 10% per month and World Wide Web services by 60% per month Many consider the Internet to be the model for the GII."

-Anthony Rutkowski, Executive Director
The Internet Society

Penetration incidents contribute to users' concerns about data vulnerability

The incidence of reported hacker penetration is growing. . .

	1990	1991	1992	1993	1994	CAGR*
Number of Reported Penetration Incidents	252	425	800	1500	2341	75%

*Compound Annual Growth Rate
Source: CERT

"We erected a filter that helps us detect attempts to hack our system. It (hacking attempts) is a daily occurrence now."

-Money Center Bank

. . . and the costs can be significant

"General Electric was forced to shut down its computers for 72 hours to assess the damage from someone infiltrating its Internet link."


-Testimony of Business Software Alliance

"... (A) MCI employee was charged with stealing 100,000 calling card numbers that were later used to place \$50 million worth of fraudulent calls."

-*Information Week* (November 28, 1994)

Increasing vulnerability will spur demand for secure information systems

-Estimate of Potential Worldwide Losses from System Penetrations*- (Billions of 1995 U.S. dollars)

	<u>1995</u>		<u>2000</u>
Conservative Scenario	\$2 Billion		\$40 Billion
Moderate Scenario	\$4 Billion		\$80 Billion

* see appendix pages 25-26 for detailed calculations

Sources: CERT; Mark Graft, Chairman of FIRST; Management Advisory Group Analysis

"We just lost a major . . . procurement in [a Middle-Eastern country] by a very small margin to [a state subsidized European competitor]. We were clearly breached; our unique approach and financial structure appeared verbatim in their (competitor's) proposal. This was a \$350 million contract worth over 3,000 jobs."

- U.S. based Manufacturer

"We had a multi-year, multi-billion dollar contract stolen off our P.C. (while bidding in a foreign country). Had it been encrypted, [the foreign competitor] could not have used it in the bidding time frame."

- U.S. based Manufacturer

Beyond these potential direct losses, many companies may suffer significant opportunity costs

Foregone Revenue Opportunities: New means of electronic distribution that would open vast new markets if adequate security were available

"We see tremendous potential for electronic commerce over the Internet. Without cryptography, we cannot address these new revenue opportunities. I could easily imagine 10% of our overseas revenues through electronic channels by the year 2000 -- the majority of this from sources that would otherwise be unavailable."

- U.S. based Manufacturer

Foregone Cost Efficiencies: significant savings associated with reengineering activities that require direct on-line linkages with distributors, suppliers and customers

"With a secure paperless environment, I can streamline my distribution chain and [save]... up to 20% of my company's total payroll."

- Foreign based Petrochemical Company

The magnitude of potential exposure underscores the inevitability of user demand for cryptography

Estimate of Potential Global User Exposure From Lack of Strong Cryptography: assuming users current export problems continue
Year 2000 projection
 (\$ Billion)

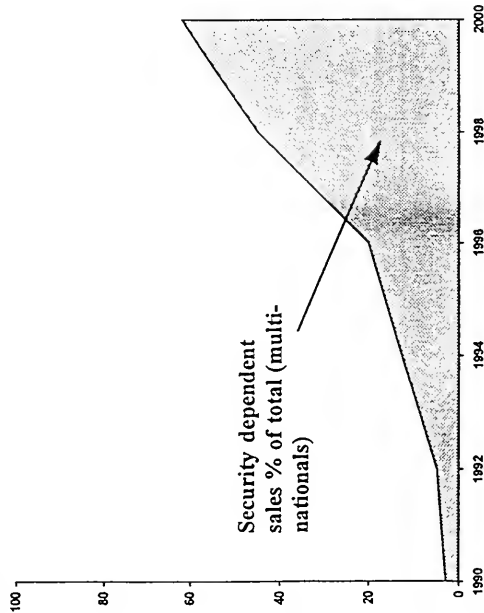
	<u>Conservative Scenario</u>	<u>Moderate Scenario</u>
Potential User Cost Efficiencies	\$180	\$360
Potential User Revenues	100	200
Potential Direct User Losses: System Penetrations*	40	80
Total	\$320 B	\$640 B

* figures do not include inflation; see appendix pages 23-26 for detailed calculations

Sources: U.S. Dept. of Commerce (BEA); CERT; FIRST; Management Advisory Group User Interviews and Analysis

This potential exposure is driving an explosion in worldwide demand for secure computing

Share of Total Computer
System Sales to Multinationals



Demand Drivers

- Move toward distributed computing
 - geometric increase in access by employees, suppliers, customers
 - move toward electronic commerce on the Internet/GII
- Globalization of business
- Improvements in computing performance: mounting threats

Source: Estimate based on Management Advisory Group User Interviews

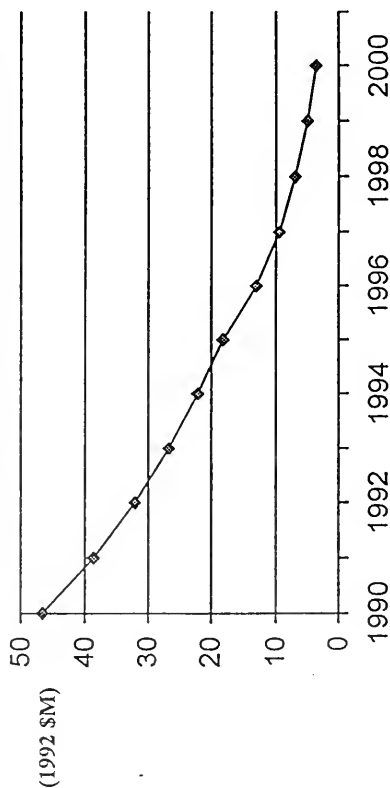
Demand will grow most rapidly for confidentiality . . . the application most constrained by U.S. export controls

<u>Cryptographic Application</u>	<u>% Using System</u>		<u>Compound Annual Growth Rate</u>
	<u>1995</u>	<u>2000</u>	
Authorization	47%	76%	10%
Confidentiality	17%	60%	29%
Authentication	22%	59%	22%

Note: Confidentiality applications protect the content of data that is transmitted or stored.
Source: U.S. Chamber of Commerce, Telecommunications Infrastructure Task Force (1995 survey of 1600 domestic business users); Management Advisory Group Analysis

Demand for increasingly effective cryptographic solutions will be driven by advances in computing performance

Example: Investment required to break DES in one day



Source: Baron and Outcrbridge, Computer Security Journal (1992), Management Advisory Group Analysis

Current export controls prevent U.S. suppliers from fully addressing worldwide demand for secure computing

The U.S. allows the export of commercial cryptography applications under limited conditions

The rapid evolution of the corporate computing environment is rendering this conditional approval process ineffective

- Financial institutions:

- DES strength cryptography typically approved for export today

- ... however,

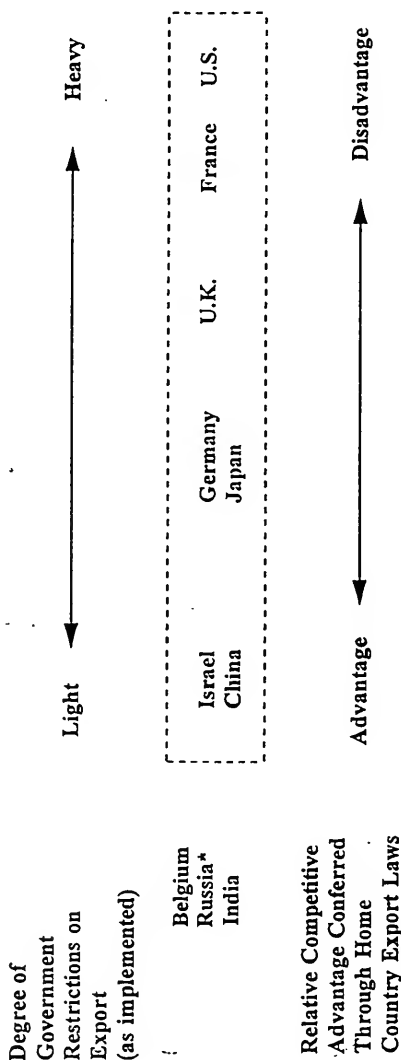
- Industry is moving toward full strength triple DES, which is currently not exportable from the U.S.

- Non-financial multinationals

- Foreign owned non-financial multinationals receive no relief from U.S. export controls on cryptography

- U.S. owned non-financial multinationals can only obtain approval for exporting strong cryptography to their majority owned affiliates overseas--however, today, approximately 90% of multinationals have non-owned outsiders on their corporate networks

Less restrictive foreign government policies are driving competitive advantage to overseas suppliers



"Though the German laws might look similar on the books, the German authorities present no practical roadblocks to the export of cryptography. I can get the product from Germany on a next day basis."

... -U.K. based Multinational

*In state of flux

Sources: Chandler, *Identification and Analysis of Foreign Laws and Regulations Pertaining to the Use of Commercial Encryption Products for Voice and Data Communication* (draft, September 1995), Management Advisory Group Interviews

... and effective security solutions are available from overseas suppliers

Foreign: 35 countries

Domestic: U.S. only

	<u>DES</u>	<u>non-DES</u>	<u>Total</u>	<u>DES</u>	<u>non-DES</u>	<u>Total</u>
Products:	179	276	455	289	291	580
Companies:			355			311

"We can get our cryptography from around the world. In fact, we do. It just seems a useless hurdle when we want to deal with U.S. systems suppliers."

- Foreign based Multinational

Sources: *The Worldwide Survey of Cryptographic Products*, Software Publishers Association/Trusted Information Systems (June 1995), Management Advisory Group Interviews

Foreign computer systems manufacturers are positioning to address the competitive opportunity for broader systems sales

European providers are beginning to address the market with an integrated solution

"We have a product line coming out now that takes advantage of cryptography in both hardware and software. We intend to provide a complete solution."

- European Computer Systems Manufacturer

Japanese providers are also pursuing this evolving market

"We've just gotten a proposal for a complete global solution from a major Japanese computer systems manufacturer. We have not completed our evaluation. But if they can provide a complete answer, we may be changing our suppliers (from U.S. based suppliers)."

- U.S. based Multinational

As overseas alternatives become available, U.S. suppliers will encounter competitive pressure on a significant portion of their revenues

Estimate of Potential Annual Revenue Exposure for U.S. Suppliers
Year 2000 projection
(nominal \$Billion*)

	<u>Conservative Scenario</u>	<u>Moderate Scenario</u>
Potential revenue exposure on sales of associated computer systems	\$30 B	\$60 B
Potential revenue exposure on sales of cryptographic products**	3 B	6 B

*see appendix pages 27-29 for detailed calculations

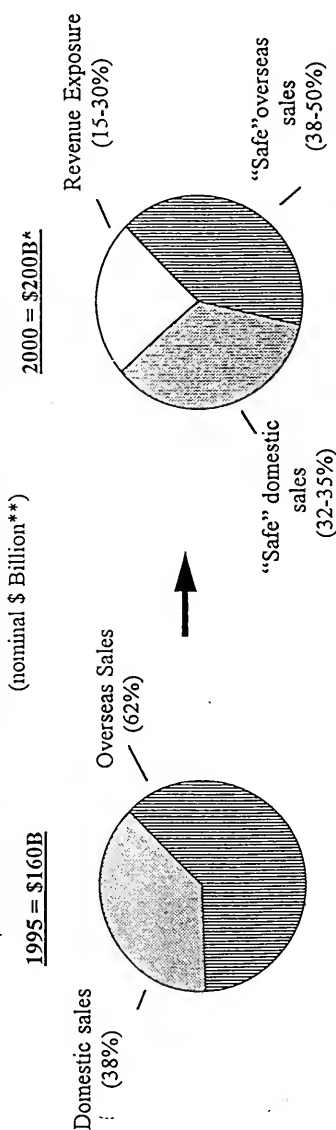
**hardware and software

Sources: CSPP Member Firms; Management Advisory Group Interviews and Analyses

Significant competitive exposure may accompany U.S. inability to meet global demand for secure computing

- A significant portion of future industry growth vulnerable to overseas competition
- Reduced technology lead and weaker economies of scale may accompany revenue loss

Share of U.S. Computer Systems Suppliers' Sales



**U.S. Computer Systems Suppliers provide 3,600 jobs for every \$1 Billion Revenues
@ one job per \$278,500 in revenues**

* projected market size before impact of export controls on cryptography
** see appendix pages 28-29 for detailed calculations

Sources: CSPP: *Freedom to Grow* (1995); CSPP Member Firms; USITC; Ernst & Young; Management Advisory Group
User Interviews and Analysis

Conclusion: U.S. leadership could be lost

Demand for secure computing is growing

Foreign suppliers are positioning to meet this demand

- effective cryptographic technology is available overseas
- fully integrated foreign solutions are being test marketed now and could be widely available in the near future

Corporate users may embrace these overseas suppliers to avoid significant potential consequences

U.S. suppliers of computer systems could experience competitive pressure on a significant portion of their revenues

- From 15% to 30 % of revenues could be exposed for a \$200 billion industry
- Each \$1 billion in revenues supports 3,600 high paid jobs

Absent a significant policy change, we could witness one of our nation's most competitive industries become significantly handicapped over the next five years as a result of dated export control policies

Appendix

Summary: Underlying Assumptions Used to Model User Impact

Potential Cost efficiencies

Year 2000: Moderate Scenario =

4% of worldwide multinational GDP = approximately \$360 Billion

Conservative Scenario=

2% of worldwide multinational GDP = approximately \$180 Billion

~Assumptions: average overhead related costs (S,G&A) = ~ 20% of multinational GDP.

User estimated overhead cost reductions associated with secure, on-line systems ranged from 20% to 40%. For moderate scenario, apply low end of range = 20%. As applied: *Moderate Scenario*, a 20% reduction in overhead x average corporate overhead, which is assumed to be 20% of multinational GDP translates into $.20 \times .20 = 4\%$ of multinational GDP; *Conservative Scenario*, a 20% reduction in overhead is factored by 0.5 to account for difficulty in implementation = 10% (adjusted) x average corporate overhead, which is assumed to be 20% of multinational GDP, translates into $.10 \times .20 = 2\%$ of multinational GDP.

Multinational GDP is estimated as follows: Base year (1989) U.S. multinational GDP = \$1,044,884 million (most recent year reported by the U.S. Dept. of Commerce). This base year is then projected to the year 2000 using the historic compound annual growth rate of multinational GDP from 1977 to 1989, which is 6.5%, yielding a year 2000 multinational GDP value of 2.1 trillion. The resulting U.S. multinational GDP projection is then grossed up to an estimate of worldwide multinational GDP by dividing U.S. multinational GDP by the U.S. share of world GDP, which is estimated at 23%, based on available data published by the U.S. Bureau of the Census. Thus the calculation of estimated worldwide multinational GDP is $\$2.1 \text{ trillion} / .23 = \sim \9 trillion , which is, in turn multiplied by 2% for our conservative scenario and 4% for our moderate scenario to yield values ranging from \$180 billion to 360 billion.

Note: our estimates are based solely on multinational cost efficiencies. According to the U.S. Department of Commerce, multinationals account for only 26% of corporate GDP in the U.S. (based on data from the most recent year available, 1989). We have not included an estimate on impact on domestic company GDP in these materials.

Sources: U.S. Dept. of Commerce, Bureau of Economic Analysis; U.S. Bureau of the Census; Management Advisory Group Interviews and Analysis

Summary: Underlying Assumptions Used to Model User Impact

Potential Revenues

Year 2000: Moderate Scenario =
4% of world exports = approximately \$200 Billion

Conservative Scenario =
2% of world exports = approximately \$100 Billion

Assumptions: User estimated potential revenue loss associated with inability to deploy secure systems in on-line revenue generating activities ranged from 4 to 6 % of export revenues. For moderate and conservative scenarios, we use the low end of the range = 4%.

As applied: *Moderate Scenario*, 4% of projected worldwide export revenues (converted to a U.S. \$ basis) = $4\% \times \$5 \text{ billion} = \200 billion ; *Conservative Scenario*, 4% of revenues is factored by 0.5 to account for difficulty in implementation = 2%.

This factored number is multiplied by projected worldwide export revenues (converted to a U.S. \$ basis) = $2\% \times \$5 \text{ billion} = \100 billion .

Worldwide export volume is estimated as follows: Base year (1991) world export volume = \$3,409 billion (converted to U.S. currency). This base year is then projected to the year 2000 using the historic compound annual growth rate of world exports from 1980 to 1991, which is 5.0%, yielding a year 2000 worldwide export revenue projection of approximately \$5 billion

Sources: U.S. Dept. of Commerce, *Statistical Abstract of the United States*, data from Statistical Division of the United Nations (New York, N.Y.); Management Advisory Group User Interviews and Analysis

Summary: Underlying Assumptions Used to Model User Impact

<u>Direct Loss from System Penetrations:</u>	<u>Conservative Scenario: 1995</u>	<u>Moderate Scenario: 1995</u>
Incidents reported to CERT:	4,000	4,000
Incidents reported to other worldwide organizations: (4,000/.10; 4,000/.05)	40,000	80,000 (conservative scenario assumes CERT sees 10% of total reports; moderate scenario assumes 5%)
Net incidents reported: (40,000/2; 80,000/2)	20,000	40,000 (assumes each incident is double reported)
Net incidents detected: (20,000/.20; 40,000/.20)	100,000	200,000 (assumes 20% of detected occurrences are reported)
Economic loss per incident:	\$20,000	\$ 20,000 (assumes only detected incidents have significant economic loss-see p. 27)
Total Estimated Global losses:	~ \$2 billion/year	~ \$4 billion/year

Note: losses calculated to grow at historic rate of 75% per annum, based on CERT experience

Sources: Mark Graft, Chairman, FIRST; Interviews and analyses conducted by Mr. Graft, Management Advisory Group Supporting Analysis

Summary: Underlying Assumptions Used to Model User Impact

Estimation of average cost per event:

Incidents (no.)	Cost per event	Weighted total cost	
90,000	\$5,000	\$450 million	
9,000	50,000	\$450 million	
900	500,000	\$450 million	
90	5,000,000	\$450 million	
9	50,000,000	\$450 million	
9	150,000,000*	<u>\$135 million</u>	
Total		~ \$2 billion	

{
 # U.S. incidents* 100,000
 Weighted average cost \$20,000

* 500,000,000 estimate by Mr. Graff factored by .3 for conservatism (e.g., single loss limited to 3x MCI experience cited on p. 8)

**U.S. incidents = 1/2 of 200,000 worldwide incidents detected in our moderate scenario, see p. 25

Source: Mark Graff, Chairman, FIRST; Interviews and analyses conducted by Mr. Graff, Management Advisory Group supporting analysis

World Market for Computer Systems

Source: CSPP, *Freedom to Grow* (1995)

Conservative: 2000

\$203B

\$203B

Commercial World Market for Computer Systems

(deduct government sales @ 8%)

Source: ELA COMSEC and COMPUSEC Market Study (1987)

Commercial Market Breakdown

(domestic @ 38%, foreign @ 62%)

Source: CSPP, *Freedom to Grow* (1995)

Multinational vs. Domestic Breakdown

Multinationals (@ 26%)

Domestic (@ 74%)

Source: U.S. Dept of Commerce, Bureau of Economic Analysis, U.S. market experience extrapolated to foreign markets

Penetration

Multinationals (@ 62% security dependent)

(10.3% of U.S. MNCs excluded - no outsiders)

Domestic Foreign = 62% penetration x .5; U.S.:

Source: Management Advisory Group User Interviews

Penetration projection excludes banks, which would be higher, and

is based on remaining responses of over 40 companies in our interview pool

TOTAL

Diagram illustrating the calculation of domestic penetration for half multinationals:

- Initial U.S. cost: \$55.1B
- Initial Foreign cost: \$116B
- Reduction in U.S. cost (10.3% of U.S. MNCs can effect global solution): \$5.7B (10.3% of \$55.1B)
- New U.S. cost: \$49.4B
- Foreign cost remains: \$116B
- Total cost: \$165.4B
- Domestic penetration = half multinationals: 1.62
- Final U.S. cost: \$80.6B (1.62 x \$49.4B)
- Final Foreign cost: \$116B
- Total cost: \$196.6B
- Final value: \$121.3B (\$196.6B / 1.62)

Summary: Underlying Assumptions Used to Model Impact on Market for Cryptographic Products:

Base Period Estimate: Market for Cryptographic Products

<u>Location</u>	<u># SPA/TIS* Ident. Cos</u>	<u>Assumed % of total cos</u>	<u>Adjusted total</u>	<u>Assumed Avg # employees/co</u>	<u>Assumed avg revs/employee</u>	<u>Estimated 1994 mkt revenues</u>
U.S.	311	90%	346	10	\$278,500	\$1 Billion
Overseas	355	50%	710	10	\$278,500	\$2 Billion
Estimated Total						\$3 Billion

Assumptions: The Software Publishers' Association and Trusted Information Systems published a study in June 1995, which identified the number of companies shown above as being active participants in the market for cryptographic products. While we did not seek to replicate this study, we make conservative assumptions as to its accuracy given the relative difficulty in locating companies overseas. Therefore, the number of companies was factored assuming that 90% of those companies in the U.S. were identified and 50% of those companies operating overseas were identified. The adjusted total number of companies was then multiplied by the assumed average number of employees per company or division involved in cryptography. In turn, this product was multiplied by an assumed average revenues per employee that is equivalent to the average revenues per employee for CSPP member companies to yield a total estimate for the year 1994 (we assume that the study published June 1995 most accurately reflects the market as of year end 1994). Note that while we are less comfortable with the adjusted total number of overseas companies that we derived, we are much more comfortable with the relative share of world revenues derived in the total. Based on our interviews, we assume that overseas companies are not as fragmented as the analysis might indicate but larger than many of their U.S. counterparts because of the relative lack of governmental restrictions on the markets for their products. A total market of \$3 billion in 1994 is consistent with our interviews of industry participants.

Sources: *The Worldwide Market for Cryptographic Products*, S.P.A./T.I.S. (June 1995), CSPP member firms; Management Advisory Group Interviews and Analysis

Summary: Underlying Assumptions Used to Model Impact on Market for Cryptographic Products:

Year 2000 Estimate: Market for Cryptographic Products:

<u>Base Year: 1994</u>	<u>Projected Year: 2000</u>	<u>CAGR*</u>
\$3 B	\$15 B	~30%

* Compound Annual Growth Rate

Projection of World Market for Cryptographic Products: Year 2000: Multinational user estimates place penetration of demand for secure systems at ~ 15% in 1994 growing to ~ 60% by the year 2000. This approximately 30% compound annual growth rate may be applied as a surrogate for growth of the 1994 estimated market of \$3 billion to yield a year 2000 market projection of \$15 billion.

Year 2000 Estimated Losses for U.S. Cryptographic Product Suppliers (hardware and software):

Projected Global Market: 2000

\$15 B

Potential U.S. share
of global mkt: no restrictions
(66.7%*)
\$10 B

Potential U.S. share of global mkt: continued restrictions
Moderate Scenario
(25%)
\$4 B

Conservative Scenario
(50%)
\$7 B

Difference:

~\$6 B ~\$3 B

* Estimate based on interviews of industry participants

MINIMAL KEY LENGTHS FOR SYMMETRIC CIPHERS TO PROVIDE ADEQUATE COMMERCIAL SECURITY

(A Report by an Ad Hoc Group of Cryptographers and Computer Scientists: Matt Blaze,¹ Whitfield Diffie,² Ronald L. Rivest,³ Bruce Schneier,⁴ Tsutomu Shimomura,⁵ Eric Thompson,⁶ Michael Wiener,⁷ January 1996)

ABSTRACT

Encryption plays an essential role in protecting the privacy of electronic information against threats from a variety of potential attackers. In so doing, modern cryptography employs a combination of conventional or symmetric cryptographic systems for encrypting data and public key or asymmetric systems for managing the keys used by the symmetric systems. Assessing the strength required of the symmetric cryptographic systems is therefore an essential step in employing cryptography for computer and communication security.

Technology readily available today (late 1995) makes brute-force attacks against cryptographic systems considered adequate for the past several years both fast and cheap. General purpose computers can be used, but a much more efficient approach is to employ commercially available Field Programmable Gate Array (FPGA) technology. For attackers prepared to make a higher initial investment, custom-made, special-purpose chips make such calculations much faster and significantly lower the amortized cost per solution.

As a result, cryptosystems with 40-bit keys offer virtually no protection at this point against brute-force attacks. Even the U.S. Data Encryption Standard with 56-bit keys is increasingly inadequate. As cryptosystems often succumb to "smarter" attacks than brute-force key search, it is also important to remember that the keylengths discussed here are the minimum needed for security against the computational threats considered.

Fortunately, the cost of very strong encryption is not significantly greater than that of weak encryption. Therefore, to provide adequate protection against the most serious threats—well-funded commercial enterprises or government intelligence agencies—keys used to protect data today should be at least 75 bits long. To protect information adequately for the next 20 years in the face of expected advances in computing power, keys in newly-deployed systems should be at least 90 bits long.

Encryption plays an essential role in protecting the privacy of electronic information

1.1 There is a need for information security

As we write this paper in late 1995, the development of electronic commerce and the Global Information Infrastructure is at a critical juncture. The dirt paths of the middle ages only became highways of business and culture after the security of travelers and the merchandise they carried could be assured. So too the information superhighway will be an ill-traveled road unless information, the goods of the Information Age, can be moved, stored, bought, and sold securely. Neither corporations nor individuals will entrust their private business or personal data to computer networks unless they can assure their information's security.

Today, most forms of information can be stored and processed electronically. This means a wide variety of information, with varying economic values and privacy aspects and with a wide variation in the time over which the information needs to be protected, will be found on computer networks. Consider the spectrum:

Electronic Funds Transfers of millions or even billions of dollars, whose short term security is essential but whose exposure is brief;

A company's strategic corporate plans, whose confidentiality must be preserved for a small number of years;

A proprietary product (Coke formula, new drug design) that needs to be protected over its useful life, often decades; and

Information private to an individual (medical condition, employment evaluation) that may need protection for the lifetime of the individual.

1.2 Encryption can provide strong confidentiality protection

Encryption is accomplished by scrambling data using mathematical procedures that make it extremely difficult and time consuming for anyone other than author-

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⁵ San Diego Supercomputer Center, tsutomu@sdsc.edu

⁶ Access Data, Inc., eric@accessdata.com

⁷ Bell Northern Research, wiener@bnr.ca

ized recipients—those with the correct decryption keys—to recover the plain text. Proper encryption guarantees that the information will be safe even if it falls into hostile hands.

Encryption—and decryption—can be performed by either computer software or hardware. Common approaches include writing the algorithm on a disk for execution by a computer central processor; placing it in ROM or PROM for execution by a microprocessor; and isolating storage and execution in a computer accessory device (smart card or PCMCIA card).

The degree of protection obtained depends on several factors. These include: the quality of the cryptosystem; the way it is implemented in software or hardware (especially its reliability and the manner in which the keys are chosen); and the total number of possible keys that can be used to encrypt the information. A cryptographic algorithm is considered strong if:

1. There is no shortcut that allows the opponent to recover the plain text without using brute force to test keys until the correct one is found; and
2. The number of possible keys is sufficiently large to make such an attack infeasible.

The principle here is similar to that of a combination lock on a safe. If the lock is well designed so that a burglar cannot hear or feel its inner workings, a person who does not know the combination can open it only by dialing one set of numbers after another until it yields.

The sizes of encryption keys are measured in bits and the difficulty of trying all possible keys grows exponentially with the number of bits used. Adding one bit to the key doubles the number of possible keys; adding ten increases it by a factor of more than a thousand.

There is no definitive way to look at a cipher and determine whether a shortcut exists. Nonetheless, several encryption algorithms—most notably the U.S. Data Encryption Standard (DES)—have been extensively studied in the public literature and are widely believed to be of very high quality. An essential element in cryptographic algorithm design is thus the length of the key, whose size places an upper bound on the system's strength.

Throughout this paper, we will assume that there are no shortcuts and treat the length of the key as representative of the cryptosystem's workfactor—the minimum amount of effort required to break the system. It is important to bear in mind, however, that cryptographers regard this as a rash assumption and a many would recommend keys two or more times as long as needed to resist brute-force attacks. Prudent cryptographic designs not only employ longer keys than might appear to be needed, but devote more computation to encrypting and decrypting. A good example of this is the popular approach of using triple-DES: encrypting the output of DES twice more, using a total of three distinct keys.

Encryption systems fall into two broad classes. Conventional or symmetric cryptosystems—those in which an entity with the ability to encrypt also has the ability to decrypt and vice versa—are the systems under consideration in this paper. The more recent public key or asymmetric cryptosystems have the property that the ability to encrypt does not imply the ability to decrypt. In contemporary cryptography, public-key systems are indispensable for managing the keys of conventional cryptosystems. All known public key cryptosystems, however, are subject to shortcut attacks and must therefore use keys ten or more times the lengths of those discussed here to achieve an equivalent level of security.

Although computers permit electronic information to be encrypted using very large keys, advances in computing power keep pushing up the size of keys that can be considered large and thus keep making it easier for individuals and organizations to attack encrypted information without the expenditure of unreasonable resources.

1.3 There are threats from a variety of potential attackers

Threats to confidentiality of information come from a number of directions and their forms depend on the resources of the attackers. "Hackers," who might be anything from high school students to commercial programmers, may have access to mainframe computers or networks of workstations. The same people can readily buy inexpensive off-the-shelf, boards, containing Field Programmable Gate Array (FPGA) chips that function as "programmable hardware" and vastly increase the effectiveness of a cryptanalytic effort. A startup company or even a well-heeled individual could afford large numbers of these chips. A major corporation or organized crime operation with "serious money" to spend could acquire custom computer chips specially designed for decryption. An intelligence agency, engaged in espionage for national economic advantage, could build a machine employing millions of such chips.

1.4 Current technology permits very strong encryption for effectively the same cost as weaker encryption

It is a property of computer encryption that modest increases in computational cost can produce vast increases in security. Encrypting information very securely (e.g., with 128-bit keys) typically requires little more computing than encrypting it weakly (e.g., with 40-bit keys). In many applications, the cryptography itself accounts for only a small fraction of the computing costs, compared to such processes as voice or image compression required to prepare material for encryption.

One consequence of this uniformity of costs is that there is rarely any need to tailor the strength of cryptography to the sensitivity of the information being protected. Even if most of the information in a system has neither privacy implications nor monetary value, there is no practical or economic reason to design computer hardware or software to provide differing levels of encryption for different messages. It is simplest, most prudent, and thus fundamentally most economical, to employ a uniformly high level of encryption: the strongest encryption required for any information that might be stored or transmitted by a secure system.

2. Readily available technology makes brute-force decryption attacks faster and cheaper

The kind of hardware used to mount a brute-force attack against an encryption algorithm depends on the scale of the cryptanalytic operation and the total funds available to the attacking enterprise. In the analysis that follows, we consider three general classes of technology that are likely to be employed by attackers with differing resources available to them. Not surprisingly, the cryptanalytic technologies that require larger upfront investments yield the lowest cost per recovered key, amortized over the life of the hardware.

It is the nature of brute-force attacks that they can be parallelized indefinitely. It is possible to use as many machines as are available, assigning each to work on a separate part of the problem. Thus regardless of the technology employed, the search time can be reduced by adding more equipment; twice as much hardware can be expected to find the right key in half the time. The total investment will have doubled, but if the hardware is kept constantly busy finding keys, the cost per key recovered is unchanged.

At the low end of the technology spectrum is the use of conventional personal computers or workstations programmed to test keys. Many people, by virtue of already owning or having access to the machines, are in a position to use such resources at little or no cost. However, general purpose computers—laden with such ancillary equipment as video controllers, keyboards, interfaces, memory, and disk storage—make expensive search engines. They are therefore likely to be employed only by casual attackers who are unable or unwilling to invest in more specialized equipment.

A more efficient technological approach is to take advantage of commercially available Field Programmable Gate Arrays. FPGAs function as programmable hardware and allow faster implementations of such tasks as encryption and decryption than conventional processors. FPGAs are a commonly used tool for simple computations that need to be done very quickly, particularly simulating integrated circuits during development.

FPGA technology is fast and cheap. The cost of an AT&T ORCA chip that can test 30 million DES keys per second is \$200. This is 1,000 times faster than a PC at about one-tenth the cost! FPGAs are widely available and, mounted on cards, can be installed in standard PCs just like sound cards, modems, or extra memory.

FPGA technology may be optimal when the same tool must be used for attacking a variety of different cryptosystems. Often, as with DES, a cryptosystem is sufficiently widely used to justify the construction of more specialized facilities. In these circumstances, the most cost-effective technology, but the one requiring the largest initial investment, is the use of Application-Specific Integrated Circuits (ASICs). A \$10 chip can test 200 million keys per second. This is seven times faster than an FPGA chip at one-twentieth the cost.

Because ASICs require a far greater engineering investment than FPGAs and must be fabricated in quantity before they are economical, this approach is only available to serious, well-funded operations such as dedicated commercial (or criminal) enterprises and government intelligence agencies.

3. 40-bit key lengths offer virtually no protection

Current U.S. Government policy generally limits exportable mass market software that incorporates encryption for confidentiality to using the RC2 or RC4 algorithms with 40-bit keys. A 40-bit key length means that there are 2^{40} possible keys. On average, half of these (2^{39}) must be tried to find the correct one. Export of other

algorithms and key lengths must be approved on a case by case basis. For example, DES with a 56-bit key has been approved for certain applications such as financial transactions.

The recent successful brute-force attack by two French graduate students on Netscape's 40-bit RC4 algorithm demonstrates the dangers of such short keys. These students at the Ecole Polytechnique in Paris used "idle time" on the school's computers, incurring no cost to themselves or their school. Even with these limited resources, they were able to recover the 40-bit key in a few days.

There is no need to have the resources of an institution of higher education at hand, however. Anyone with a modicum of computer expertise and a few hundred dollars would be able to attack 40-bit encryption much faster. An FPGA chip—costing approximately \$400 mounted on a card—would on average recover a 40-bit key in five hours. Assuming the FPGA lasts three years and is used continuously to find keys, the average cost per key is eight cents.

A more determined commercial predator, prepared to spend \$10,000 for a set-up with 25 ORCA chips, can find 40-bit keys in an average of 12 minutes, at the same average eight cent cost. Spending more money to buy more chips reduces the time accordingly: \$300,000 results in a solution in an average of 24 seconds; \$10,000,000 results in an average solution in 0.7 seconds.

As already noted, a corporation with substantial resources can design and commission custom chips that are much faster. By doing this, a company spending \$300,000 could find the right 40-bit key in an average of 0.18 seconds at $\frac{1}{10}$ th of a cent per solution; a larger company or government agency willing to spend \$10,000,000 could find the right key on average in 0.005 seconds (again at $\frac{1}{10}$ th of a cent per solution). (Note that the cost per solution remains constant because we have conservatively assumed constant costs for chip acquisition—in fact increasing the quantities purchased of a custom chip reduces the average chip cost as the initial design and set-up costs are spread over a greater number of chips.)

These results are summarized in Table I.

4. Even DES with 56-bit keys is increasingly inadequate

4.1 DES is no panacea today

The Data Encryption Standard (DES) was developed in the 1970s by IBM and NSA and adopted by the U.S. Government as a Federal Information Processing Standard for data encryption. It was intended to provide strong encryption for the government's sensitive but unclassified information. It was recognized by many, even at the time DES was adopted, that technological developments would make DES's 56-bit key exceedingly vulnerable to attack before the end of the century.

Today, DES may be the most widely employed encryption algorithm and continues to be a commonly cited benchmark. Yet DES-like encryption strength is no panacea. Calculations show that DES is inadequate against a corporate or government attacker committing serious resources. The bottom line is that DES is cheaper and easier to break than many believe.

As explained above, 40-bit encryption provides inadequate protection against even the most casual of intruders, content to scavenge time on idle machines or to spend a few hundred dollars. Against such opponents, using DES with a 56-bit key will provide a substantial measure of security. At present, it would take a year and a half for someone using \$10,000 worth of FPGA technology to search out a DES key. In ten years time an investment of this size would allow one to find a DES key in less than a week.

The real threat to commercial transactions and to privacy on the Internet is from individuals and organizations willing to invest substantial time and money. As more and more business and personal information becomes electronic, the potential rewards to a dedicated commercial predator also increase significantly and may justify the commitment of adequate resources.

A serious effort—on the order of \$300,000—by a legitimate or illegitimate business could find a DES key in an average of 19 days using off-the-shelf technology and in only 3 hours using a custom developed chip. In the latter case, it would cost \$38 to find each key (again assuming a 3 year life to the chip and continual use). A business or government willing to spend \$10,000,000 on custom chips, could recover DES keys in an average of 6 minutes, for the same \$38 per key.

At the very high end, an organization—presumably a government intelligence agency—willing to spend \$300,000,000 could recover DES keys in 12 seconds each! The investment required is large but not unheard of in the intelligence community. It is less than the cost of the Glomar Explorer, built to salvage a single Russian submarine, and far less than the cost of many spy satellites. Such an expense might be hard to justify in attacking a single target, but seems entirely appropriate

against a cryptographic algorithm, like DES, enjoying extensive popularity around the world.

There is ample evidence of the danger presented by government intelligence agencies seeking to obtain information not only for military purposes but for commercial advantage. Congressional hearings in 1993 highlighted instances in which the French and Japanese governments spied on behalf of their countries' own businesses. Thus, having to protect commercial information against such threats is not a hypothetical proposition.

4.2 There are smarter avenues of attack than brute force

It is easier to walk around a tree than climb up and down it. There is no need to break the window of a house to get in if the front door is unlocked.

Calculations regarding the strength of encryption against brute-force attack are worst case scenarios. They assume that the ciphers are in a sense perfect and that attempts to find shortcuts have failed. One important point is that the crudest approach—searching through the keys—is entirely feasible against many widely used systems. Another is that the keylengths we discuss are always minimal. As discussed earlier, prudent designs might use keys twice or three times as long to provide a margin of safety.

4.3 The analysis for Other Algorithms Is Roughly Comparable

The above analysis has focused on the time and money required to find a key to decrypt information using the RC4 algorithm with a 40-bit key or the DES algorithm with its 56-bit key, but the results are not peculiar to these ciphers. Although each algorithm has its own particular characteristics, the effort required to find the keys of other ciphers is comparable. There may be some differences as the result of implementation procedures, but these do not materially affect the brute-force breakability of algorithms with roughly comparable key lengths.

Specifically, it has been suggested at times that differences in set-up procedures, such as the long key-setup process in RC4, result in some algorithms having effectively longer keys than others. For the purpose of our analysis, such factors appear to vary the effective key length by no more than about eight bits.

5. Appropriate Key Lengths for the Future—a Proposal

Table I summarizes the costs of carrying out brute-force attacks against symmetric cryptosystems with 40-bit and 56-bit keys using networks of general purpose computers, Field Programmable Gate Arrays, and special-purpose chips.

It shows that 56 bits provides a level of protection—about a year and a half—that would be adequate for many commercial purposes against an opponent prepared to invest \$10,000. Against an opponent prepared to invest \$300,000, the period of protection has dropped to the barest minimum of 19 days. Above this, the protection quickly declines to negligible. A very large, but easily imaginable, investment by an intelligence agency would clearly allow it to recover keys in real time.

What workfactor would be required for security today? For an opponent whose budget lay in the \$10 to 300 million range, the time required to search out keys in a 75-bit keyspace would be between 6 years and 70 days. Although the latter figure may seem comparable to the "barest minimum" 19 days mentioned earlier, it represents—under our amortization assumptions—a cost of \$19 million and a recovery rate of only five keys a year. The victims of such an attack would have to be fat targets indeed.

Because many kinds of information must be kept confidential for long periods of time, assessment cannot be limited to the protection required today. Equally important, cryptosystems—especially if they are standards—often remain in use for years or even decades. DES, for example, has been in use for more than 20 years and will probably continue to be employed for several more. In particular, the lifetime of a cryptosystem is likely to exceed the lifetime of any individual product embodying it.

A rough estimate of the minimum strength required as a function of time can be obtained by applying an empirical rule, popularly called "Moore's Law," which holds that the computing power available for a given cost doubles every 18 months. Taking into account both the lifetime of cryptographic equipment and the lifetime of the secrets it protects, we believe it is prudent to require that encrypted data should still be secure in 20 years. Moore's Law thus predicts that the keys should be approximately 14 bits longer than required to protect against an attack today.

Bearing in mind that the additional computational costs of stronger encryption are modest, we strongly recommend a minimum key-length of 90 bits for symmetric cryptosystems.

It is instructive to compare this recommendation with both Federal Information Processing Standard 46, The Data Encryption Standard (DES), and Federal Information Processing Standard 185, The Escrowed Encryption Standard (EES). DES

was proposed 21 years ago and used a 56-bit key. Applying Moore's Law and adding 14 bits, we see that the strength of DES when it was proposed in 1975 was comparable to that of a 70-bit system today. Furthermore, it was estimated at the time that DES was not strong enough and that keys could be recovered at a rate of one per day for an investment of about twenty-million dollars. Our 75-bit estimate today corresponds to 61 bits in 1975, enough to have moved the cost of key recovery just out of reach. The Escrowed Encryption Standard, while unacceptable to many potential users for other reasons, embodies a notion of appropriate key length that is similar to our own. It uses 80-bit keys, a number that lies between our figures of 75 and 90 bits.

ABOUT THE AUTHORS

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Whitfield Diffie is a distinguished Engineer at Sun Microsystems specializing in security. In 1976 Diffie and Martin Hellman created public key cryptography, which solved the problem of sending coded information between individuals with no prior relationship and is the basis for widespread encryption in the digital information age.

Ronald L. Rivest is a professor of computer science at the Massachusetts Institute of Technology, and is Associate Director of MIT's Laboratory for Computer Science. Rivest, together with Leonard Adleman and Adi Shamir, invented the RSA public-key cryptosystem that is used widely throughout industry. Ron Rivest is one of the founders of RSA Data Security Inc. and is the creator of variable key length symmetric key ciphers (e.g., RC4).

Bruce Schneier is president of Counterpane Systems, a consulting firm specializing in cryptography and computer security. Schneier writes and speaks frequently on computer security and privacy and is the author of a leading cryptography textbook, *Applied Cryptography*, and is the creator of the symmetric key cipher Blowfish.

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Eric Thompson heads AccessData Corporation's cryptanalytic team and is a frequent lecturer on applied cryptography. AccessData specializes in data recovery and decrypting information utilizing brute force as well as "smarter" attacks. Regular clients include the FBI and other law enforcement agencies as well as corporations.

Michael Wiener is a cryptographic advisor at Bell-Northern Research where he focuses on cryptanalysis, security architectures, and public-key infrastructures. His influential 1993 paper, *Efficient DES Key Search*, describes in detail how to construct a machine to brute force crack DES coded information (and provides cost estimates as well).

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WORLDWIDE SURVEY OF CRYPTOGRAPHIC PRODUCTS

Description: In order to determine how widespread cryptography is in the world, Trusted Information Systems (TIS) has been conducting a survey of products employing cryptography both within and outside the U.S. Some amount of information about specific products here and there was available, but no one has ever assembled a comprehensive database with, where possible, verification of product availability. Originally commissioned by the Software Publisher's Association (SPA) in May 1993 and conducted in cooperation with Dr. Lance Hoffman of the George Washington University, TIS has conducted an ongoing survey for over two years. Information about cryptographic products continues to flow in on a daily basis. We are releasing summary information on a quarterly basis. The summary statistics as of December 1995 are reported below.

We have now identified 1181 products worldwide, and we're continuing to learn about new products, both domestic and foreign, on a daily basis. We've also obtained numerous products from abroad and are examining these products to assess their

functionality and security. The survey results show that cryptography is indeed widespread throughout the world. Export controls outside of the U.S. appear to be less restrictive. The quality of foreign products seems to be comparable to that of U.S. products. Given U.S. export restrictions, foreign customers who need cryptographic-based security for their unclassified but sensitive information now can turn to foreign rather than U.S. sources to fulfill that need. As a result, U.S. Government restrictions may be succeeding only in crippling a vital American industry's exporting ability.

CRYPTO SURVEY RESULTS:

Worldwide Availability of Cryptographic Products (as of December 1995):

Foreign Products: We identified 497 foreign products from 28 countries: Argentina, Australia, Austria, Belgium, Canada, Czech Rep., Denmark, Finland, France, Germany, Hong Kong, India, Iran, Ireland, Israel, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Poland, Russia, South Africa, Spain, Sweden, Switzerland, and UK.

Of these, 193 employ DES.81 in software programs and kits manufactured in the following countries: Australia, 5; Austria, 1; Belgium, 1; Canada, 8; Denmark, 5; Finland, 1; Germany, 16; Ireland, 1; Israel, 9; Italy, 1; Japan, 1; Netherlands, 4; Poland, 1; Russia, 4; South Africa, 4; Sweden, 5; Switzerland, 1; and UK, 13.

Some foreign companies have distributors throughout the world, including in the U.S.; One U.K. company has distributors in at least 13 countries, and one German company has distributors in 14 countries.

Domestic Products: We identified 684 domestic products, 330 with DES.

Total Products: Worldwide total of 1181 products manufactured and distributed by 780 companies (412 foreign, 368 domestic) in at least 67 countries.

Sources of Information: To provide a definitive assessment of the manufacture and distribution of cryptographic products throughout the world, the survey makes use of numerous sources of information: computer security product guides, including Datapro reports, Elsevier PC Security Guide, Computer Security Institute (CSI) Computer Security Products Buyer's Guide, and INFOSecurity News Buyer's Guide; various trade press and journal articles; product literature; Internet electronic mailing lists and news groups; on-line computer hardware and software databases, e.g., CompuServe; and foreign embassies and trade associations.

Confirmation of Products: Information about cryptographic products is collected into a comprehensive database, with, where possible, verification of product availability through direct inquiries of product manufacturers and distributors. Manufacturers are asked to provide additional information and product literature. Survey forms are provided to manufacturers to permit them to clarify collected information on known products or provide information on additional products. Numerous cryptographic products have been purchased from manufacturers or distributors.

Types of Products: The survey includes many types of cryptographic-based security products: hardware, firmware, software, or combinations thereof; general-purpose products (e.g., word processors, spreadsheets, telephones, or modems), as well as explicit cryptographic products (e.g., a PC file encryption utility); commercial mass-market products, as well as shareware and other products freely available via dial-up BBS connections or over the Internet via anonymous FTP; and products providing confidentiality, integrity, and/or authentication service using cryptographic mechanisms.

Obtaining Foreign Products: We have obtained a number of products, focusing on software products employing the Data Encryption Standard (DES). The products were purchased via routine channels, either directly from the foreign manufacturer, or from a U.S. distributor. The products were shipped to us within a few days, and in several cases, overnight. Implementations of DES, RSA, and IDEA were obtained freely over the Internet from the sites throughout the world.

Analysis of Software Products: We have examined a number of domestic and foreign software products, looking at both the functionality and security characteristics of these products. While it is difficult to directly compare different products, we have developed a cryptographic security profile that we apply to each product. The profile looks at numerous characteristics of the products: basic program operation; cryptographic key entry, storage, verification, and recovery; cryptographic modes of operation and use of IVs and padding techniques; file headers; file zeroization; and the implementation of the cryptographic algorithm.

Additional Information: To obtain further information on the TIS worldwide survey of cryptographic products, or to provide any information you may have about cryptographic products, visit the crypto survey Web page at <http://www.tis.com/>

crypto/crypto-survey, or contact David Balenson at 301-854-6889 or by sending email to <balenson@tis.com> via the Internet.

BUSINESS SOFTWARE ALLIANCE'S ANSWERS TO QUESTIONS FOR PANEL II

Question 1. Some of you have indicated that, in your opinion, Section 1201 would reverse the Supreme Court's holding which affirmed a consumer's right to private, non-commercial home recording. Importantly, part of the court's holding was that once a consumer buys a copyrighted work, he can use it for personal home use. This bill would encourage, and not hinder this part of the holding. Once a consumer pays an amount to access a copyrighted work, it could be downloaded onto his computer. Once downloaded, a consumer would of course, have a copy of the work, perhaps for a time certain, for private home use. What a consumer cannot do is to obtain the work for free in the first place by using a "black box" or other technology. Do you advocate allowing consumers to legally circumvent protected copyrighted works? If not, how should we properly protect those works?

Answer. One of the immutable facts of the electronic age for holders of copyright is that electronic dissemination of works in digital form will make such works far more vulnerable to unauthorized copying. To address this increased threat, H.R. 2441 correctly surmises that authors will make increased use of both anti-copying technologies, as well as "identifiers"—such as "electronic envelopes" containing the name of the copyright owner and the terms and conditions for licensing the work.

Section 1201, H.R. 2441 proposes to make it unlawful to defeat or circumvent both copyright management information and copyright protection systems. We support this provision and its goals. We believe that consumers should have full access to works through electronic means, but access to such works should be on commercial terms. Unless authors can protect their works against unauthorized duplication and further dissemination, the author effectively make only one sale of the work, and further sales will be thwarted by unscrupulous copying. While some further fine tuning of Section 1201 may be appropriate, its objective is a basic and necessary element of ensuring the establishment and use of electronic means to disseminate and commercialize works.

Question 2. Section 1201 may need to be tailored to allow the purchase of electronics which do not have as their primary purpose the enabling of consumers to steal copyrighted works. Unlike the Audio Home Recording Act, it is difficult in this bill to mandate a defined technological protection for copyrighted works on the internet because the technology is constantly changing. One thing is assured, however: in a market worth billions of dollars, there will always be those who will try to make products, the primary purpose of which, is to steal copyrighted works. What is your opinion of a provision which would only apply the "primary purpose" test instead of the "primary purpose and effect test." In other words, a manufacturer could design and produce a product which has a legitimate non-infringing purpose, and the fact that is also happens to circumvent a copyright protection technology would not prohibit its production?

Answer. As we understand it, the purpose of Section 1201 is to permit authors to safeguard the integrity of their works by implementing technologies means to protect them. The bill, as now constructed focuses on the marketing of devices which circumvent safeguards. From the perspective of enforcing rights, the key concept is to ensure the law addresses the efforts of the unscrupulous seeking to circumvent protection—the act of affecting circumvention—and not just the actual device used to accomplish those goals. This is why in our testimony we proposed adding the term "use." As your question notes, devices can have multiple purposes—both legitimate and illicit. Circumvention can be done by the use of a microprocessor, a computer program, or even a mathematical formula. These can be specifically designed or adapted for the purpose of circumvention, or they can have that use as a collateral application. For these reasons, we believe it would be best if the statute focused on the illicit act—circumvention—which necessarily requires an examination of the effect using the devices in connection with a work subject to technological safeguards.

Question 3. I understand that some of you have been working the copyright owners on the Section 1201 issue. Can you tell us the substance of these negotiations and any progress that has been made?

Answer. The BSA is a member of the Creative Incentive Coalition (CIC), which has an on-going dialogue with providers of on-line services to find a balanced approach to the issue of liability. Some of BSA's members are both copyright holders and on-line service providers. We are hopeful that from discussions a consensus will emerge. It would be useful for the Subcommittee to move ahead with legislation

along the lines of H.R. 2441, even if there is no resolution of the on-line service provider liability issue.

Question 4. In your testimony, some of you repeatedly referred to the consequences of making on-line service providers "strictly liable" for the infringements of their subscribers. However, this bill does nothing to alter the current state of on-line service provider liability, and current law does not impose strict liability on such providers. In fact, in the recent Netcom decision, the court explicitly rejected strict liability for on-line service providers and held as a matter of law that such liability required "some element of causation." Can you explain this disparity between your concerns and the actual state of the law and provisions of this bill?

Answer. This is not applicable to the Business Software Alliance.

Question 5. Critics of this bill seem to be concerned more about what it does not address rather than what it does address; for example, the first sale doctrine, fair use and on-line service provider liability. Don't you believe that we can go forward with basic necessary changes without addressing every area of intellectual property law until they can be further studied, especially in light of developing technologies?

Answer. By design, the copyright law has always been dynamic, and the Congress has acted judiciously in making changes to the law as specific problems became clear. We believe that H.R. 2441 falls squarely within this tradition. The changes proposed by this bill are sound in light of the current state of development of electronic means to distribute works. Over time, as these systems and businesses evolve, we may well find that the law requires further amendment. Thus, we believe that the issues addressed by the bill are the ones for which action is now timely. With respect to the online service providers we hope a consensus will emerge from the discussions, and on the other issues raised in your question we believe that the time is not ripe for action. We would support, however, active and on-going steps to study these issues.

Question 6. Some critics argue that the first sale doctrine must be altered and applied in the digital environment. However, 17 U.S.C. & 109(b)(1)(A) excepts computer programs and sound recordings from the first sale doctrine because they so easily lend themselves to expansive and perfect copying. Doesn't that rationale necessarily apply to digital information, and if so, do you favor repealing those laws?

Answer. We believe that the law now strikes the right balance in respect of the application of the first sale doctrine to computer programs. Altering Section 109 would cause substantial and immediate disruption for our industry. Thus we would oppose any change in that section. It remains an open question, however, whether the rule now applied to software should apply to works generally which are disseminated in digital form. While we have not studied this matter in detail, it is our impression that many of the considerations which prompted the Congress to draft Section 109 in its current form, are also applicable to works other than software which are made available in electronic form.

Question 7. In your testimony, some of you disagreed with the methods employed in the bill to codify the digital transmission right which is already fairly well established by the courts. How would you address this issue?

Answer. We support the bill's provisions on "transmission" as they were introduced.

Question 8. It is necessary to amend fair use law, or can the courts continue to apply the law and address the fair use issue on a case-by-case basis as they already do?

Answer. The fair use provision codified in section 107 of the copyright law is a well established doctrine, which has proven to be flexible and adaptable to a variety of types of works in a multiplicity of circumstances. We believe that the doctrine and the balancing interests it safeguards, can be applied as currently written and interpreted to digital environments. For these reasons we do not believe it to be necessary to modify language of section 107.

CCIA RESPONSES TO CHAIRMAN MOORHEAD'S QUESTIONS FOR PANEL II

1. CCIA strongly opposes a consumer's circumvention of any anticopying device for the purposes of making an unlawful copy. Thus, CCIA opposes a consumer's use of a "black box" which allows him to access products without paying for them. At the same time, CCIA believes that such a black box may have legitimate uses. For example, a news organization may need to access a cable broadcast for reporting purposes. Because information will increasingly be available only in an encrypted digital format from proprietary sources, the ability of news organizations to have fair use access should be an important public policy consideration. For this reason, we believe that the copyright law should focus not on the technology itself, but on

how the technology is used. We believe that the *Betamax* standard does this by prohibiting only technologies for which there is no substantial non-infringing use. By setting the threshold quite high, the *Betamax* standard directs attention toward the infringers who are using the device for unlawful purposes.

2. CCIA believes that a "primary purpose" test represents a significant improvement over a "primary purpose or effect test" because it does not subject the developer of a technology to liability for events beyond the developer's control. Nonetheless, Section 1201 would still have problems from our perspective. Whose "purpose" for the device is considered? The manufacturer's? The distributor's? The user's? And what if one manufacturer has a different purpose in mind from another manufacturer? Nevertheless, a "primary purpose" test is a step in the right direction.

3. Thus far CCIA has held only preliminary conversations with content providers about H.R. 2441 generally, and not Section 1201 in particular. CCIA hopes that we can engage in substantive discussions in the near future. In any case, your proposal in Question 2 is a good starting point for these discussions.

4. While the *Netcom* decision concluded that an-line/internet service provider (OSP) was not a direct infringer, and therefore not strictly liable, OSPs were found to be infringers (and thus strictly liable) in two earlier decisions: *Playboy v. Frena* and *Sega v. MAPHIA*. Although CCIA disagrees with these two decisions' conclusions regarding direct infringement, future courts may find their reasoning more compelling than the *Netcom* decision. CCIA believes that the law on liability of on-line/internet service providers is far from clear and is a potential minefield of disparate liability claims against our companies. Furthermore, CCIA's members will offer new interactive services on a national basis and they need a stable legal environment where their services can prosper. One of the keys to such prosperity is uniformity. Thus, we truly need Congressional clarification of liability.

H.R. 2441 as drafted, does clarify matters somewhat, but in the wrong direction. By treating a transmission as a distribution, the bill increases the likelihood that a court will view an OSP's transmission of an infringing message as an infringement of the distribution right. Moreover, under Section 1202(a) an OSP may be liable for transmitting a message with false copyright management information. These changes which greatly increase the likelihood that OSP's will be held liable for the transmissions of their users must be limited by an actual knowledge requirement for said transmissions.

5. H.R. 2441 in its current form upsets the careful balance Congress has crafted in the past between creators of content, distributors of content and users of content. While CCIA agrees that it may be appropriate for Congress to address NII copyright issues one step at a time, it is critical that each step be balanced. A step that favors copyright owners will not necessarily be followed by a step favoring distributors or users. Indeed, CCIA seriously doubts whether copyright owners will have any incentive to support legislative changes which address the concerns raised by distributors and users after they have secured modifications to the copyright laws that address their problems.

6. Section 109(b)(1)(A) provides only a *partial* exemption from the first sale doctrine to computer programs and sound recordings. It prohibits the rental of such works, but not their sale. For the first sale doctrine to be workable in the digital environment, it might be necessary to prohibit *rental* of any digital work by transmission (except of course for non-profit libraries). The *sale* of a digital work, by contrast, should be permitted, provided that the original is destroyed upon transmission.

7. We have no opposition to a digital transmission right *provided* that appropriate exceptions are also included in the legislation, such as the first sale doctrine, fair use, and OSP liability.

8. Because the White Paper suggested that fair use might not have a place in the digital environment, it would be extremely helpful to amend Section 107 to explicitly refer to transmission. Further, unless there is an explicit exception for random access memory (RAM) copies, the committee report should state that RAM copies and the other incidental copies made during normal use of the NII (e.g., copying an E-mail message when replying to it) are fair uses.

THE MCGRAW-HILL COMPANIES,
BARBARA A. MUNDER, SENIOR VICE PRESIDENT, CORPORATE AFFAIRS,
Washington, DC, February 15, 1996.

Hon. CARLOS MOORHEAD,
Chairman, House Subcommittee on Courts and Intellectual Property, House Rayburn
Office Building, B351-A, Washington, DC.

DEAR MR. CHAIRMAN: Thank you for the opportunity to testify before your Subcommittee last week on H.R. 2441. The McGraw-Hill Companies and the Information Industry Association very much appreciate your efforts to move this bill forward. We view this legislative issue as our top priority for 1996 and look forward to working with you to achieve passage of your bill.

Enclosed are the answers to the written questions you provided to Panel II. I would be happy to respond to additional questions or to clarify any of the attached responses.

Thank you for your consideration.

Sincerely,

BARBARA MUNDER.

RESPONSE OF BARBARA A. MUNDER, SENIOR VICE PRESIDENT OF CORPORATE AFFAIRS
FOR THE MCGRAW-HILL COMPANIES AND CHAIR OF THE INFORMATION INDUSTRY
ASSOCIATION TO CHAIRMAN MOORHEAD'S QUESTIONS

Question 1. Some of you have indicated that, in your opinion, Section 1201 would reverse the Supreme Court's holding which affirmed a consumer's right to private, noncommercial home recording. Importantly, part of the court's holding was that once a consumer buys a copyrighted work, he can use it for personal home use. This bill would encourage, and not hinder this part of the holding. Once a consumer pays an amount to access a copyrighted work, it could be downloaded onto his computer. Once downloaded, a consumer would, of course, have a copy of the work, perhaps for a time certain, for private home use. What a consumer cannot do is to obtain the work for free in the first place by using a "black box" or other technology. Do you advocate allowing consumers to legally circumvent protected copyrighted works? If not, how should we properly protect those works?

Answer. Mr. Chairman, the Information Industry Association (IIA) supports Section 1201 and 1202. As indicated in our testimony, we do not share the opinion of those who argue that Section 1201 would reverse the Supreme Court's holding in the Sony case that private in-home non-commercial copying of broadcast television shows by consumers is a fair use.

Strong prohibitions against tampering with copyright management information and copyright management systems are critical to assure a safe NII/GII environment for intellectual property. It is our view that Section 1201 is aimed at those who make it their business to steal intellectual property. That should be against the law and criminal penalties should be available to deter such behavior.

Question 2. Section 1201 may need to be tailored to allow the purchase of electronics which do not have as their primary purpose the enabling of consumers to steal copyrighted works. Unlike the Audio Home Recording Act, it is difficult in this bill to mandate a defined technological protection for copyrighted works on the internet because the technology is constantly changing. Once this is assured, however: in a market worth billions of dollars, there will always be those who will try to make products, the primary purpose of which, is to steal copyrighted works. What is your opinion of a provision which would only apply the "primary purpose" test instead of the "primary purpose and effect test". In other words, a manufacturer could design and produce a product which has a legitimate non-infringing purpose, and the fact that it also happens to circumvent a copyright protection technology would not prohibit its production.

Answer. IIA supports a targeted solution to the problem of the individual/organization which makes or distributes a product designed to get around encryption systems or other protective "envelopes" to steal intellectual property. As a business executive, I can tell you that when we create a product, we have a business plan which identifies the purpose of the product, the need it serves, its audience, marketing and distribution plans, etc. It is difficult to imagine that the manufacturer, importer or distributor of any such product could be unaware of either its primary purpose or effect. Accordingly, we are not in favor of deleting the "primary effect" test from Section 1201. We do appreciate, however, some of the concerns that have been expressed concerning this language. We remain open to discussing possible changes to the language that would clarify the intent.

Question 3. I understand that some of you have been working with copyright owners of the Section 1201 issue. Can you tell us the substance of these negotiations and any progress that has been made?

Answer. IIA has not been part of that process and is unable to respond to this question. However, we would welcome the opportunity to work with industry and user representatives on this matter.

Question 4. In your testimony, some of you repeatedly referred to the consequences of making on-line service providers "strictly liable" for the infringements of their subscribers. However, this bill does nothing to alter the current state of on-line service provider liability, and current law does not impose strict liability on such providers. In fact, in the recent *Netcom* decision, the court explicitly rejected strict liability for on-line service providers and held as a matter of law that such liability required "some element of causation." Can you explain this disparity between your concerns and the actual state of the law and provisions of this bill?

Answer. We agree that this bill does not alter the status of on-line service provider (OSP) liability and that *Netcom* did not impose strict liability. As I stated in my written testimony, within our own Association, opinions differ as to the extent to which OSPs should be liable for infringing materials delivered over their systems. We are working internally very aggressively towards consensus on some key issues.

Additionally, it is important to be clear that the term "OSP" is used to refer to companies that engage in a wide variety of on-line functions. At one end of the spectrum, it refers to the provision of transmission services which are, in form and substance, devoid of any value-added functionalities. At the other extreme, an OSP could be engaged in activities where varying degrees of value-added functions are present, including directing users to specific information sources, contributing material to an on-line service and/or monitoring, or editing material from on-line bulletin boards and conferences, with or without the direct involvement of the transmission facilities owner.

The nature of on-line service functions is changing. Increasingly, content providers are performing a number of functions beyond the simple creation and provision of copyrighted material and are taking on roles that up to now have been deemed OSP activities. In fact, a single party may act in several different roles within a single service. In our view, any solution must recognize this reality and cannot rely on a simple dichotomy between OSPs and current providers.

As I stated in my oral testimony, this convergence of the roles of the OSPs and content providers is pushing us together to work towards some solutions. Our discussions have been aimed at clarifying the varying degrees of control an on-line service provider has over content carried over its service, the ability to remove infringing content upon notification and the responsibility of OSPs to educate their customers as to their obligations to keep pirated materials off these systems. We are committed to the process, but believe that it is unwise to delay this bill while we work through these difficult and evolving issues.

Question 5. Critics of this bill seem to be concerned more about what it does not address rather than what it does address; for example, the first sale doctrine, fair use and on-line service provider liability. Don't you believe that we can go forward with basic necessary changes without addressing every area of intellectual property law until they can be further studied, especially in light of developing technologies?

Answer. IIA agrees that this bill is a clarification of existing copyright law, intended to provide certainty in the on-line environment and protection for digital copyrighted works. These other issues require further discussion among key stakeholders to determine if and where amendments would be appropriate. When these issues are ripe for legislation, we will be back to the Subcommittee seeking your help. However, we are not ready yet. Our priority at this point is to ensure passage of this legislation on a timely basis. Clarification of the law in this area is imperative to the success of the NII.

Question 6. Some critics argues that the first sale doctrine must be altered and applied in the digital environment. However, 17 U.S.C. Section 109(b)(1)(A) excepts computer programs and sound recordings from the first sale doctrine because they so easily lend themselves to expansive and perfect copying. Doesn't that rationale necessarily apply to digital information, and if so, do you favor repealing those laws?

Answer. IIA does not support changing the first sale doctrine at this time. We have no confidence in the ability or willingness to control the passing of a digital work from computer to computer to avoid the creation of numerous unauthorized copies.

Question 7. In your testimony, some of you disagreed with the methods employed in the bill to codify the digital transmission right which is already fairly well established by the courts. How would you address this issue?

Answer. IIA supports the current provision in H.R. 2441.

Question 8. Is it necessary to amend fair use law, or can the courts continue to apply the law and address the fair use issues on a case-by-case basis as they already do?

Answer. HIA is participating in the ongoing CONFU discussions, and believes that the fair use doctrine can be applied successfully to the digital world. H.R. 2441 broadens the fair use protection in a few areas, namely for preservation of digital copies and for special materials for the blind. We believe that this is as far as the law should be changed in this area at this time. We note, for example, that it is unnecessary—and indeed would be confusing—to amend Section 107 to explicitly mention the proposed right of distribution by transmission. That right will be codified in Section 106, and Section 107 already specifically refers to Section 106. Section 107 is a broad flexible provision. It will accommodate claims of fair use in the new environment as written.

RESPONSE OF GARY J. SHAPIRO ON BEHALF OF HOME RECORDING RIGHTS COALITION AND CONSUMER ELECTRONICS MANUFACTURERS ASSOCIATION TO CHAIRMAN MOORHEAD'S QUESTIONS

Question 1. Some of you have indicated that, in your opinion, Section 1201 would reverse the Supreme Court's holding which affirmed a consumer's right to private, noncommercial home recording. Importantly, part of the court's holding was that once a consumer buys a copyrighted work, he can use it for personal home use. This bill would encourage, and not hinder this part of the holding. Once a consumer pays an amount to access a copyrighted work, it could be downloaded onto his computer. Once downloaded, a consumer would, of course, have a copy of the work, perhaps for a time certain, for private home use. What a consumer cannot do is to obtain the work for free in the first place by using a "black box" or other technology. Do you advocate allowing consumers to legally circumvent protected copyrighted works? if not, how should we properly protect those works?

Answer. In the *Betamax* decision, the Supreme Court held that because the Betamax is "capable of substantial noninfringing uses, * * * Sony's sale of such equipment to the general public does not constitute contributory infringement of respondents' copyrights." Since section 1201, as drafted, could outlaw devices that have substantial noninfringing uses if they do not also respond to all anticopying technology, we believe it reverses the Supreme Court's decision. Thus, it is irrelevant whether enactment of the proposed legislation would affirm that part of the Court's holding that confirmed the right of consumers to use a copyrighted work for personal use once acquired. The question is thus based on a false premise, namely, that consumers would have the right preserved to purchase and download a copyrighted work for private home use if section 1201 is enacted.

Although possibly intended to cover only "black boxes" that have no substantial noninfringing uses, the proposed legislation as drafted would have a much broader reach. By covering components as well as devices (as opposed to covering only devices extrinsic to a VCR, computer, or other recording device), section 1201 could be used by courts to outlaw entirely the recording ability of any VCR or other recording device that does not anticipate and comply with *all* anti-copying encoding that might be applied—even encoding that would prevent fair use copying, distort regular TV pictures, require expensive licenses, or otherwise frustrate consumers. Without access to the latest recording products kept from the market because of the legal uncertainty created by section 1201, consumers would not be able to pay for and download copyrighted works for private home use.

Neither the Home Recording Rights Coalition nor the Consumer Electronic Manufacturers Association advocates allowing consumers to circumvent properly protected copyright works through the use of "black boxes" that have no commercially significant use other than to circumvent copy protection. However, as established by the Supreme Court in the *Betamax* decision, we support the right of consumers to continue to make legal, fair use recordings of copyrighted works at home on VCRs and other recording devices for private, noncommercial purposes. Taking into account the Supreme Court's decision and over a decade of responsible use of VCRs by consumers in the privacy of their homes, we believe there is only one workable approach to governing devices as to consumer recording practices: First, define the copy protection technology Congress wishes to protect against circumvention and assure that products implementing this technology, and the consumers who use them, will not face suit under the Copyright Act. Second, make sure that implementation of the technology is economical and does not harm program content, and that rights to it are available on reasonable terms to both device manufacturers and copyright proprietors. Finally, and most importantly, define when and how copyright propri-

etors may and may not use anticopying encoding so as to protect the customary and reasonable fair use rights of consumers. Then, and only then, prohibit the circumvention of the copy prevention technology that passes these tests. In that way, you can properly protect works without undermining long-established Supreme Court precedent, impeding technological progress, or taking away rights responsibly enjoyed by millions of consumers in nearly 90 percent of the homes in the United States.

Question 2. Section 1201 may need to be tailored to allow the purchase of electronics which do not have as their primary purpose the enabling of consumers to steal copyrighted works. Unlike the Audio Home Recording Act, it is difficult in this bill to mandate a defined technological protection for copyrighted works on the Internet because the technology is constantly changing. One thing is assured, however: In a market worth billions of dollars, there will always be those who will try to make products, the primary purpose of which, is to steal copyrighted works. What is your opinion of a provision which would only apply the "primary purpose" test instead of the "primary purpose and effect test"? In other words, a manufacturer could design and produce a product which has a legitimate non-infringing purpose, and the fact that it also happens to circumvent a copyright protection technology would not prohibit its production.

Answer. Just as adoption of the "primary purpose and effect" test would overturn the Supreme Court's decision in the *Betamax* decision, so too would a "primary purpose" test. Under both formulations, section 1201 could be used by courts to outlaw entirely the recording ability of any VCR or other recording device that does not anticipate and comply with all anti-copying encoding that might be applied. If, instead, as the question also suggests, the test were whether a product had a legitimate noninfringing purpose (even if it also happened to circumvent a copyright protection technology), the Subcommittee could in fact adopt legislation consistent with the Supreme Court's decision.

Unfortunately, as pointed out in response to question 1, the legislation as introduced incorporates a test that potentially would outlaw all new video recording devices. A provision that would apply only the "primary purpose" test instead of the "primary purpose and effect" test similarly would not secure the public's right to use recording equipment for legitimate purposes, would not promote the development and introduction of new recording and playback technologies, and would not provide a stable legal environment in which manufacturers could introduce new products, retailers could sell them, and consumers could enjoy their benefits because the proposed legislation would continue to create the undue risk of lawsuits against legitimate recording devices with substantial non-infringing uses. (In contrast, a provision that would apply a "sole purpose" test would not meet the *Betamax* test and might well address these additional concerns.)

Question 3. I understand that some of you have been working with the copyright owners on the Section 1201 issue. Can you tell us the substance of these negotiations and any progress that has been made?

Answer. In response to a request from Senate Judiciary Committee Chairman Orrin Hatch and Senator Patrick Leahy, the Electronic Industries Association (of which the Consumer Electronic manufacturers Association is a sector) and the Motion Picture Association of America have been engaged in intense efforts to develop a comprehensive legislative proposal to address legal and technical copy protection measures with respect to consumer copying of motion pictures. Citing the Audio Home Recording Act as a model, Senators Hatch and Leahy indicated that it should be "possible to accommodate legitimate concerns in a way that protects our copyright industries and promotes the development of new technology for the benefit of the public." In crafting a possible legislative proposal, representatives of the consumer electronics industry have avoided the problems inherent in the approach taken in section 1201 and instead have sought to secure the public's right to use recording equipment for legitimate purposes, to promote the development and introduction of new recording and playback technologies, and to provide a stable legal environment in which manufacturers could introduce new products, retailers could sell them, and consumers could enjoy their benefits.

Unlike section 1201's broad, undefined prohibition, this legislative proposal will incorporate a circumvention prohibition that includes the characteristics we described in response to question 1. The ultimate goal is legislation in which specific copy protection technology will be defined that is economical, will not harm program content, and will be available on reasonable terms. Limitations on the use of copy protection codes will be clearly spelled out that protect customary and fair use rights of consumers. In short, the legislative proposal being developed will serve as a model for acceptable anti-circumvention legislation.

Since their initial meetings last year, the parties have made substantial progress in seeking to achieve these objectives. Speaking for the consumer electronics industry, we hope to provide a jointly agreed upon draft of this comprehensive legislative proposal to the Subcommittee in the very near term.

Question 4. In your testimony, some of you repeatedly referred to the consequences of making on-line service providers "strictly liable" for the infringements of their subscribers. However, this bill does nothing to alter the current state of on-line service provider liability, and current law does not impose strict liability on such providers. In fact, in the recent *Netcom* decision, the court explicitly rejected strict liability for on-line service providers and held as a matter of law that such liability required "some element of causation." Can you explain this disparity between your concerns and the actual state of the law and provisions of this bill?

Answer. We did not testify with respect to the on-line service provider liability issue, but we share the desire of on-line service providers to address it as part of the debate over H.R. 2441.

Question 5. Critics of this bill seem to be concerned more about what it does not address rather than what it does address; for example, the first sale doctrine, fair use and on-line service provider liability. Don't you believe that we can go forward with basic necessary changes without addressing every area of intellectual property law until they can be further studied, especially in light of developing technologies?

Answer. We do not believe it is appropriate to make only the changes to the Copyright Act proposed by the Clinton Administration and copyright proprietor interests without addressing the legitimate concerns expressed by others about other important issues, such as the first sale doctrine, fair use, and on-line service provider liability, especially in light of developing technologies. Just as the Constitutional provision undergirding the Copyright Act is predicated on maintaining a balance, so too should any legislation ostensibly bringing the law into the digital age maintain an appropriate balance between the interests of creators, distributors, and consumers of information, all of whom should share in "the progress of Science and the Useful Arts." Proposed section 1201 is perhaps the most egregious example of a fundamentally one-sided provision that simply ignores rather than attempts to address the implications of developing technologies.

Question 6. Some critics argue that the first sale doctrine must be altered and applied in the digital environment. However, 17 U.S.C. § 109(b)(1)(A) excepts computer programs and sound recordings from the first sale doctrine because they so easily lend themselves to expansive and perfect copying. Doesn't that rationale necessarily apply to digital information, and if so, do you favor repealing those laws?

Answer. We do not accept the premise that section 109(b)(1)(A) "excepts computer programs and sound recordings from the first sale doctrine because they so easily lend themselves to expansive and perfect copying." Nor do we accept that such a rationale, as stated, necessarily applies to digital information. Although we do not advocate repealing that law, we believe it is essential to maintain overall Copyright Act balance. Unfortunately, as introduced, H.R. 2441 is fundamentally biased in favor of copyright proprietor interests.

Question 7. In your testimony, some of you disagreed with the methods employed in the bill to codify the digital transmission right which is already fairly well established by the courts. How would you address this issue?

Answer. We did not testify with respect to this issue.

Question 8. Is it necessary to amend the fair use law, or can the courts continue to apply the law and address the fair use issues on a case-by-case basis as they already do?

Answer. Since its founding over a decade ago, the Home Recording Rights Coalition has fought to preserve the fair use rights of consumers to make noncommercial recordings in the privacy of their homes. In our view, maintaining a robust fair use doctrine has never been more important than now, at the dawn of the digital era.

We see no reason or justification for amending the fair use law now in a way that would impair consumer rights. The 1976 Copyright Act properly codified judicial precedent and the courts have continued to properly strike the appropriate balance in applying the law.

Equally important, the Subcommittee should not eviscerate fair use law through the guise of making ostensibly unrelated, modest alterations to the Copyright coat. Commercial success for both hardware and content industries, as in the case of the VCR, hangs on offering a square deal to the consumer by preserving long-standing fair use rights. The digital revolution means that, to paraphrase Ben Franklin, traditional copyright adversaries such as content providers and hardware manufacturers must now hang together, or surely they will hang separately.

RESPONSES OF IEEE-USA TO QUESTIONS SUBMITTED BY CHAIRMAN MOORHEAD

1. As one of the world's largest publishers of technical material, we realize that without a copyright protection system in place, (that utilizes encryption), we could conceivably stand to lose a great deal of IEEE's intellectual property revenue. We therefore do not advocate generally allowing a black box decryption device to permit consumers to legally circumvent certain encryption protected copyrighted works. However, the language of this bill creates three technological dilemmas with which we are concerned.

Section 1201 will impede "legal" copying or legal forms of reverse engineering of computer programs as defined by the 9th Circuit Court of Appeals in *Sega v. Accolade* (as well as other fair use) because there is no present fair use exclusion for decryption found within Section 1201, since decryption is not technically copyright infringement. (This appears to be the source of Mr. Valenti's request for criminal sanctions. He would not need them if decryption were copyright infringement. Copyright infringement already has adequate criminal sanctions. Copying a computer program for the purpose of interoperability was defined by the 9th Circuit, as well as by two other U.S. circuit courts, as legal fair use as long as the copying does not result in a competing product. Frequently engineers must reverse engineer software or hardware to understand how it works so that they can write a different piece of software that will operate on that particular system. If encryption circumvention of copyright protection systems is prohibited, engineers will be unable to create innovative new technologies that will be interoperable with other technologies on the NII. If new technologies are not created the NII will clearly stagnate.

Additionally, Section 1201 of H.R. 2441 would inhibit research and testing in the encryption area, a technology needed to protect the creator's intellectual property. Encryption is becoming a big business and testing one's decryption resistance becomes very important as the technology improves and the speed of these devices and computers increase. Section 1201 of this bill would discourage such testing by the market place of third parties. We would lose our leadership role in encryption technology if decryption devices are considered to be illegal. The U.S. Congress has never before outlawed a device, (including in the *Betamax* case), only misuse them. There are commercial businesses working with quasi-standard encryption methods and new "unbreakable" ones are being developed. The only way to test the strength of encryption technology is to attempt to decrypt the encryption through decryption devices prohibited by this bill.

Under Section 1201, an organization could conceivably take government non-copy-rightable data, that was once available to the public. This data would become substantially unavailable by maintaining it in inconvenient forms for public use, and republish the information as a compilation with encryption and discriminating search engines. This organization would hold the copyright to this information, as a compilation, and lock up this data using a copyright protection system. If the original data was not easily accessible, the general public would be substantially deprived of this information that was once available to them. Under Section 1201, this copyright protection system could not be circumvented, thereby making government data, funded by the U.S. taxpayer, inaccessible to the public even under the Freedom of Information Act (FOIA).

The following is a list of amendments that IEEE-USA believes will allow creators to properly protect their works without making circumvention of copyright protection systems illegal:

On page 4, line 14 insert the word "knowingly" after the word "shall."

On page 4, lines 16 & 17 strike out the word "primary" and put in its place the words "substantially exclusive"

On page 4 line 17 add the word "intended" after the word "is" and before the word "to"

On page 4 line 22 after the number 106 add: "for a work protected by copyright other than (1) for compilations or works that contain primarily data of a federal state, local or other governmental agency or body or (2) exceptions permitted under law, or (3) works customarily not protected by the owner."

Another method suggested above would be to particularize this section to the entertainment, software, and publishing industries who would for complete works have protection of encryption subject to fair use.

2. IEEE-USA would support a modified primary purpose test in the case of circumvention of certain copyright protection systems. We believe that the amendments that we have provided in number 1 about would identify those people, whose

primary purpose was to make copies for distribution and receipt of monetary rewards, as infringers.

We acknowledge that Section 1203(c)(3)(B)(5) allows for "innocent violations," but we do not believe that it will be effective. By the time the judicial phase is reached, it is going to be very difficult for an individual or corporation to explain why their actions in circumventing a copyright protection system was an "innocent violation." Further the innocent individuals or corporations would be enmeshed in law suits with the burden on them to prove their innocence. Innocent decoding should be excused, especially if material that is generally regarded by others as unprotectable by copyright, is found to be protected by both copyright and a copyright protection system.

3. IEEE-USA has not been involved in the negotiations with copyright owners over the issue of Section 1201. We represent over 230,000 U.S. members who are electrical, electronics and computer engineers, many of whom are intellectual property owners, including copyrights. We are primarily concerned with their intellectual property rights and those of the IEEE organization as a whole since we are one of the world's largest technical publishers.

4. IEEE-USA believes that it is essential to the future of the NII to exempt third party Internet providers from being penalized for the nefarious acts of subscribers. We do not hold the cellular telephone services responsible for computer break-ins—nor should we hold Internet providers liable for other illegal activities that they did not knowingly commit. Although the court recently rejected strict liability for online providers such as in the *Netcom* decision, we believe that Netcom and others should not have to be put through the rigors of the legal system to prove that they are not liable for criminal or civil violations of their subscribers, nor do we believe this case disposes of the threat that third parties still may be held liable in the future.

However, we do believe that third party providers have certain responsibilities and obligations to the public to inform their subscribers that (1) they will not tolerate copyright infringing uses of their services, (2) nor will they tolerate criminal activities through the use of their service. If the third party Internet provider is aware of the infringing material, they have an obligation to reasonably remove it from their server and prohibit the subscriber from use of their service. The third party Internet provider cannot be expected to have knowledge of every document that resides on their server nor to decide at their peril between the accuser and the accused. They cannot police this incredible amount of information without undue burden which would be crippling. It is for this reason that we do not believe that online Internet providers should be held liable for actions of subscribers.

We do however, believe that Section 1202 does directly involve third party Internet providers because they would be the ones to transmit altered headers. This involvement of third party providers under Section 1202 could bring all the other culpability issues into focus. This would have an adverse impact on the providers. It may also imply that Congress' intent was to hold the Internet providers responsible for unknowingly relaying messages with altered copyright headers.

5. We believe that it would be of greater benefit to our country to enact a comprehensive bill that addresses some of the most important issues of intellectual property and the NII. IEEE-USA does not believe that it would be prudent to rush H.R. 2441, a bill concerning intellectual property and the NII without carefully studying the ramifications of such legislation on present and future technology.

6. We believe that the delivery of a physical embodiment of a work, for example a book, is different from its digital embodiment. The physical embodiment can only be delivered by loss of control of the original by the person delivering the message—which is untrue of the digital embodiment. The first sale doctrine should be used with digital embodiments only with technologies such as a program acting between a lending library and a subscriber that insures the digital embodiment "borrowed" is "returned." No copy of the substantially whole work would be retained by the borrower after a fixed time period.

7. Although the courts may have "fairly established" the definition of digital transmission, IEEE-USA does not believe they have done so in the context of this legislation or that have taken into account the present and future tools of the NII. While one might argue that the use of the words "transit" and "transmission" are minor changes that reflect an electronic publication rather than a hard copy publication, we believe that the use of the word "transmission" and its ramifications should be looked at more seriously. Specifically, Section 2(b)(2) of H.R. 2441, would change the way in which users of the Internet have been conducting business for a number of years. Following is a list of technological examples of why we believe the use of the word transmission or transmit in this bill would impede the advancement and use of the NII:

Email

When a sender transmits his/her message, it is implied within this legislation and explicit in the enacting legislation for the Berne Convention, that the sender has copyrights to his/her message. Under H.R. 2441 a person would be in violation of copyright infringement, if the recipient of an email message responds to the sender with the sender's original message still attached, by using the automatic reply or forwarding icons (that so many of today's email software applications have).

World Wide Web

An even more difficult situation arises when we view a world wide web page. When the user of world wide web enters a URL or world wide web address onto his/her browser (application software that enables the user to view a web site), the graphical representation of information is transmitted into the user's computer and for that moment a copy has been made and is fixed in the user's computer. Most web browser software stores or "fixes" a copy of that web site into what is known as a "cache" file that resides on the hard drive of the user's computer. The purpose of this of course is not to necessarily make a copy of the web site but to make it easier and faster to return to the same web site at a later date. If this particular bill were enacted into law, even casual users of world wide web would clearly be in violation of the law. The mere use of the word "transmission" without qualification may create new difficulties for the users and consumers of what is now the NII.

Distance Learning

Another example of how the use of the words, "transmission" and "transmit" may impede one's use of the NII, is found in distance learning. As a result of the advancement of technology and the NII, individuals and companies seeking to improve their skills and knowledge base are increasingly learning from a distance. This fairly new form of education is conducted over the Internet. Courses can literally be taught over the Internet. Even interactive seminars are held. The information is distributed over the Internet and is received by students or learning institutions linked to the Internet. Under this bill the mere fact that the information was "transmitted," (and stored at the display device) would make the individuals providing the learning materials liable for copyright infringement, to the extent not covered by fair use.

IEEE-USA recommends the following amendment to remedy the difficulties that arise with the use of the words transmit or transmission.

Section 2(b)(2): page 2, line 13: add the following language after the word "sent." other than for re-transmissions or for education or for temporary storage, including storage by a provider or for interactive purposes, wherein the works are primarily not for entertainment with the amount of the work transmitted being greater than five minutes or ten pages in length.

8. IEEE-USA believes that there must be additional specific fair use exemptions. Therefore, we believe that the language that we recommend above in number 7, would take care of some of the following fair use situations on the NII.

As in libraries and in schools, there should be an exemption of fair use for the act of learning at a distance. Also, presently it is not copyright infringement to go to a library and browse through books (hard copy). However, under this bill it would be infringement to browse through information on the world wide web that may include books from libraries. The act browsing on the world wide web will by definition be a "transmission." If browsing for information becomes a copyright infringement, this will greatly diminish this country's research abilities.

Within five to ten years, the NII may be even more dramatically impacted by such legislation. How will business parties in profit-making situations have interactive communication if one of the participants want to show a rightfully possessed copyrighted document to another participant at a remote location using the NII? The mere acts of scanning the document, so that it can be transmitted, and then transmitting the document would be an infringement of copyright under this bill.

Further, once home recording devices have voice recognition print-out capability, the oral reading of a whole work to the recorder and the subsequent printing, or fixation in memory in digital form would become an infringement.

MISCELLANEOUS COMMENTS

Although Jack Valenti asserted in his testimony that criminal sanctions were needed for infringement of copyrights under this bill, we believe the current statutes would impose criminal sanctions except for encryption under Section 1201 and copyright headers under Section 1202.

Mr. Moorhead.

I would like to thank each one of you for your testimony today. The subcommittee much appreciates the contribution.

This concludes today's hearing on the bill. The third day of hearings will take place in this room tomorrow, February 8, 1996, beginning at 9 a.m.

The record will remain open until February 15.

Thank you for your cooperation, and the subcommittee stands adjourned.

[Whereupon, at 4:47 p.m., the subcommittee adjourned.]

NII COPYRIGHT PROTECTION ACT OF 1995 (Part 2)

THURSDAY, FEBRUARY 8, 1996

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COURTS AND
INTELLECTUAL PROPERTY,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:05 a.m., in room 2237, Rayburn House Office Building, Hon. Carlos J. Moorhead (chairman of the subcommittee) presiding.

Present: Representatives Carlos J. Moorhead, F. James Sensenbrenner, Jr., Bob Goodlatte, Sonny Bono, Patricia Schroeder, and Rick Boucher.

Also present: Thomas E. Mooney, chief counsel; Jon Dudas, assistant counsel; Mitch Glazier, assistant counsel; Veronica Eligan, secretary; and Betty Wheeler, minority counsel.

Mr. MOORHEAD. The Subcommittee on Courts and Intellectual Property will come to order.

This is the third day of hearings on H.R. 2441, the NII Copyright Protection Act of 1995. Our first 2 days have been enlightening, and I think the subcommittee will be well served, by the oral and written testimony, in understanding the complex issues contained in and around this very important piece of legislation.

As I stated yesterday, we are at the beginning of a new frontier in the distribution and reproduction of copyrighted works, and the means by which we will communicate globally. We are here to start in motion a process which will encourage creativity and the development of technology.

Thank you all for coming this morning and being here to help us achieve that goal.

I believe H.R. 2441 represents generally the steps we must undertake in this Congress to provide access to creative works. I am looking forward to today's testimony.

Our first witness on panel one this morning is Ms. Jeanne Hurley Simon. Ms. Simon has been the Chairwoman of the U.S. National Commission on Libraries and Information Science since 1993. She has a law degree from Northwestern University Law School. Ms. Simon is a member of the Illinois and the District of Columbia Bar Associations; the Women's Bar Association of Illinois; the American Library Association; the Association of American University Women; the League of Women Voters, and the Women's National Democratic Club.

Welcome, Ms. Simon.

Ms. SIMON. Thank you, Mr. Chairman.

Mr. MOORHEAD. Our second witness is Dr. Tuck Tinsley III. Dr. Tinsley has been president of the American Printing House for the Blind in Louisville since 1989. Dr. Tinsley received his B.S. and M.S. from the Florida State University and a doctorate of education from the University of Florida. For the past 20 years, Dr. Tinsley has been an educator of the deaf and the blind, and has published 17 professional monographs and articles regarding the blind and visually impaired.

Welcome, Dr. Tinsley.

Mr. TINSLEY. Thank you.

Mr. MOORHEAD. Our last witness on this panel is Mr. Richard Robinson, who is chairman of the board, president and chief executive officer of the Scholastic Corp. Mr. Robinson's father was the founder of the Scholastic Corp. in 1920. Since then, Mr. Robinson has continued Scholastic's strong tradition of exploring innovative solutions to the problems facing our education system. Mr. Robinson studied at Cambridge University, Teachers College of Columbia University, and is a graduate of Harvard College.

My goodness, you spent most of your life in college.

We have written statements from our three witnesses.

I ask unanimous consent that they be made a part of the record.

Please summarize your statements in 10 minutes or less.

I ask that the subcommittee hold their questions of all witnesses until the panel has completed their oral presentations.

We will begin with the testimony of Ms. Simon.

STATEMENT OF JEANNE HURLEY SIMON, CHAIRPERSON, U.S. NATIONAL COMMISSION ON LIBRARIES AND INFORMATION SCIENCE

Ms. SIMON. Thank you, Mr. Chairman.

I am Jeanne Simon, and I am pleased to be here this morning representing the U.S. National Commission on Libraries and Information Science.

Good morning, Mr. Boucher. And I thank you for the invitation to share the views of the Information on Libraries and Information Science on this very important legislation.

I am submitting a written copy of a prepared statement for the record, as you have noted, Mr. Chairman.

Before I begin, I want you to know that I am not a copyright lawyer. My testimony and my statements of the Commission on H.R. 2441 are not based on expert knowledge of intellectual property law. Rather, my testimony reflects the concerns of an attorney, a lifelong supporter of libraries, and a published author. In addition, my husband is a prolific author, and Paul is hard at work on his 15th book, using a Royal manual typewriter.

NCLIS, our Commission is a permanent, independent Federal Government agency, established in 1970 by Public Law 91-345 to advise the President and the Congress of the United States on policies related to libraries and information services. The Commission represents the needs and interests of citizens.

Our Commission does not represent librarians or publishers specifically. My 14 fellow Commission members include university administrators, locally elected leaders, publishers, media producers,

and librarians, as well as Jim Billington, of the Library of Congress. Our views reflect the needs of people who are users of library and information services.

This morning, I want to emphasize two points about H.R. 2441: No. 1, revisions to the copyright law must retain the balance between protecting owners' rights and the needs of users. And No. 2, despite assurances that the amendments proposed in this bill are modest, the overall cumulative impact on these changes needs very careful study.

In general, our Commission supports the bill's overall goals and agrees with the principles underlying many of the provisions included in the bill. However, we recommend that Congress undertake a careful examination of those areas of the Copyright Act that are not addressed in this particular legislation, to determine if further statutory changes are needed at this time to maintain the balance between owners' rights and limitations or exemptions to these rights.

Also, the National Commission on Libraries and Information Science recommends that Congress allow sufficient time to carefully research and understand the impact of the proposed changes on the general public. Statutory changes to the Copyright Act must not widen the gap between information haves and have-nots. We need to be certain that the public shares in the benefits promised by the new information technologies.

Chairman Moorhead, I know that when you introduced H.R. 2441 in September, and again you mentioned it yesterday, you called it a starting point, a good starting point.

In reviewing the bill's impact on users, Congress should make a special effort to solicit viewpoints from all interested parties concerning the proposed statutory changes and the possible overall cumulative impact that the proposed changes may have on the balance between the rights of owners and limitations to these rights for users of copyright works.

Finally, Congress may want to consider involving other Federal agencies, such as the Copyright Office, and the National Commission, to assist with an examination of the impacts of the proposed statutory amendments on users of library and information services.

The Commission in the past worked closely with the Register of Copyrights, this was 20 years ago, to fashion procedures involving librarians and publishers on the issue of photocopying. Congress should consider establishing a balanced representative group for common-ground discussions and charge that group with responsibility for developing legislative proposals to assure that the balance between owners' exclusive rights and the limitation on these rights will serve the interests of the public in this digital age.

Finally, just as congressional telecommunications reform action last week addressed the need to preserve and advance universal service by requiring discounted rates for schools and libraries, congressional action to update the Copyright Act for the information superhighway must assure that schools, libraries, and users are able to fully participate in the digital age.

I thank you for the opportunity to present these points this morning, Mr. Chairman. I would be pleased to respond to your questions later.

Mr. MOORHEAD. Thank you.

[The prepared statement of Ms. Simon follows:]

PREPARED STATEMENT OF JEANNE HURLEY SIMON, CHAIRPERSON, U.S. NATIONAL
COMMISSION ON LIBRARIES AND INFORMATION SCIENCE

1.) Introduction

Good morning. I am Jeanne Hurley Simon, Chairperson of the U.S. National Commission on Libraries and Information Science (NCLIS). Mr. Chairman, I am pleased to be here this morning on behalf of the National Commission. NCLIS welcomes the invitation to testify before the Subcommittee on Courts and Intellectual Property of the House Committee on the Judiciary on H.R. 2441 the "NII Copyright Protection Act of 1995."

NCLIS is a permanent independent federal agency, established by P.L. 91-345 to advise the President and the Congress on policies related to libraries and information services adequate to meet the information needs of the people of the United States. Since it was established 25 years ago, the Commission has provided advice and recommendations on the implementation of wide range of national policies including copyright-related issues. My testimony this morning reflects the views and concerns of the members of NCLIS, as well as my own personal observations, both as an attorney and a life-long supporter of strong libraries and information services. Also, I might add, my background includes authoring a non-fiction book, although I am married to more prolific published

author (Paul is now working on his fifteenth book using his favorite Royal manual typewriter). So, from that perspective, I support both libraries and publishing.

2.) NCLIS represents library and information service users

Because the Commission is composed of the Librarian of Congress and fourteen citizens (including five library or information professionals) appointed by the President, by and with the consent of the Senate, NCLIS is responsible for developing advice, recommendations, and plans that reflect the needs and interests of the American people for library and information services. The Commission was not established to represent the perspectives of libraries or librarians; nor does the Commission officially represent the interests of publishers or media owners. Our interests reflect the views of a citizens' advisory board consisting of individuals from public and academic libraries, commercial information service providers, local elected officials, business, the media, publishing, and university administration.

A partial list of current Commissioners includes: Frank J. Lucchino, the Controller of Alleghney County, Pennsylvania; Mary S. Furlong, President

and Founder of SeniorNet; Walter H. Anderson, Editor of Parade magazine; Robert S. Willard, Vice President of Lawyers Cooperative Publishing; Joel Valdez, Financial Vice President of the University of Arizona; Carol DiPrete, Librarian and Dean of Academic Services at Roger Williams University in Rhode Island; Martha B. Gould, the retired Director of the Washoe County Public Library in Reno, Nevada; LeVar Burton, who is widely recognized for his contributions as a television and motion picture actor, producer, and director; and Joan R. Challinor who serves on the board of directors of Knight Ridder, Inc. These NCLIS members, drawn from diverse backgrounds and experiences, reflect a variety of competencies and interests in society's diverse needs for library and information services.

The Commission is authorized to advise federal, state, local and private agencies. Our law requires that our advice and recommendations address the needs, interests, and requirements of library and information service users. The NCLIS statute requires that the Commission give special attention to the informational needs of rural areas, of economically, socially, or culturally deprived persons, and of elderly persons in order to assure that all people, regardless of their circumstances, have the opportunity to use libraries and information services effectively. The Commission fulfills a key role in

determining the need for policies to assure that all the people of the U.S. have the opportunity to participate in the information age.

NCLIS works to recommend and provide policy advice to ensure the informational needs of the Nation, of average American citizens - - children, students, parents, teachers, researchers, and workers, among others - - are adequately met, and that America's educational resources and information services are available for effective utilization to all Americans. Thus, this prepared statement and the written testimony I am submitting for the record reflect the views and perspectives of NCLIS members about the public's interest in accessing and using library and information resources in all formats, with special attention to those works and information services that are associated with the development of the National Information Infrastructure (NII).

3.) The roles of libraries and information services in the NII

Over the last several years the National Commission has performed research on the roles of public libraries in the Internet. These studies¹ and

¹ U.S. National Commission on Libraries and Information Science. Internet Costs and Cost Models for Public Libraries: Final Report. Washington, D.C.: NCLIS: 1995.

surveys² are intended to clarify the role of libraries and information services in the transition towards digital technologies that are the basis of the emerging NII. These investigations conform with a 1991 amendment to the Commission's statute which calls on NCLIS to *"...promote research and development activities which will extend and improve the Nation's library and information handling capability as essential links in the national and international communications and cooperative networks."*

By conducting sample surveys of public library involvement with the Internet (1994 and 1996) and by conducting focus groups of librarians, information technologists, network service providers, policy makers, and elected leaders (1994 and 1995), NCLIS has identified the major economic, social, policy, and technology factors related to U.S. library involvement in the NII.

These recent NCLIS studies, along with associated research into networking activities, reveal a heightened interest within the library and information services community about copyright. There is great concern for maintaining a balance between the needs of users of copyrighted materials,

² U.S. National Commission on Libraries and Information Science. Public Libraries and the Internet: Study Results, Policy Issues, and Recommendations: Final Report. Washington, D.C. : NCLIS: 1994.

including libraries, while, at the same time, providing safeguards that protect property rights of creators and owners from piracy.

Librarians are concerned to maintain a balance which is dependent on statutory limitations on owners' exclusive rights in copyrighted works. Similarly, publishers and owners of copyrighted materials emphasize the fundamental economic importance of assuring that digital products and services will receive the necessary protection from unauthorized use and infringement.

Publishers, librarians and information specialists identify the copyright law and related policies as critical to the full exploitation of the new technology and the achievement of the vision of the NII. Unless the framework for legitimate commerce is preserved, the vast communications network that is emerging as the NII will not achieve its full potential. At the same time, unless the actual consequences of the proposed amendments to the Copyright Act incorporated in H.R. 2441 are considered carefully and comprehensively, the balance between protecting and limiting rights may be placed in jeopardy. This balance of interests must be preserved in order to provide the public with the fullest possible range of entertainment, information, enrichment, culture, and knowledge.

4.) Maintaining the balance of interests and rights

The Commission is pleased to provide comments and views on H.R. 2441. In general, NCLIS supports the bill's overall goals and agrees with the principles underlying many of the bill's provisions. However, the bill involves extremely complex issues that cut across a broad range of legal, technological, and economic policies and practices. Careful analysis is needed to assure that the consequences of the proposed changes are clearly understood and analyzed.

Many of the proposed amendments and statutory changes require in-depth analysis and examination to assess the impact of enactment on current practice and future developments. Thus, for example, the proposal that a work's public distribution by transmission be subject to the copyright owner's exclusive distribution right needs to be examined for the effects it may have on other provisions of the statute.

The incredibly rapid pace of technological change is blurring the boundaries and distinctions between publishing, distributing, browsing, reproducing, and transmitting works in electronic format. The impact of any

one of the individual proposed amendments to the Copyright Act included in H.R. 2441 may not, when considered separately, appear to disturb the balance between copyright owners' rights and limitations on these rights. But the overall cumulative impact of the proposed changes may skew this delicate balance and deter the development of the NII. This is why a careful analysis of the bill's provisions is needed.

Changes to the statutory provisions which establish the rights and protections, as well as the exemptions to these rights and protections, that serve as the foundation and basis for creative, intellectual, and knowledge activity in the Nation should not be accomplished without due deliberation. Neither should changes be enacted without a careful and full understanding of the consequences that these changes are likely to have on the various constituencies dependent upon copyright policies. Those affected include publishers, libraries, and users. As digital technologies and communications networks continue to develop, evolve, and change, the impact of the proposed changes may be more significant than we are able to predict from the present perspective. As a result, Congress should carefully avoid enactment of provisions that would create impediments to the continued development of the NII. In addition, the proposed changes should be examined carefully to determine if enactment of the

amendments will shift the balance struck by current law between owners and users of copyrighted works.

This bill presents changes designed to bring the copyright law into the digital age by proposing specific statutory changes, amendments, and clarifications. These changes focus primarily on clarifying protections for the exclusive rights of copyright owners. The provisions of H.R. 4221 are based on recombinations included in the report of the Working Group on Intellectual Property Rights of the Information Infrastructure Task Force (IITF).

Considerable thought and discussion of the current copyright law and intellectual property policies related to digital information are reflected in the IITF Working Group's comprehensive report. Although the recommendations and discussions included in the report serve as the basis for proposed changes to the Copyright Act, not all the issues in the report's discussions are reflected in H.R. 2441.

As an example, although the report examines the intellectual property implications of the NII, no statutory changes in §107 (Limitations on exclusive rights: Fair use) of the Copyright Act are proposed. Rather, the Working

Group established a separate Conference on Fair Use (CONFU) to determine whether educational or library guidelines can be formalized. Unfortunately, the CONFU process may not produce useful results. Another, more formally established series of discussion and negotiations should be held to focus attention on the Fair Use provision as applied to library practices. Congress should take the leadership in this area.

The Working Group deserves commendation for undertaking an examination of the copyright law to eliminate uncertainty related to digital information. The report provides a discussion of the issues faced by interested parties and serves as the basis for exploring the nature of electronic communications in the future. However, much of the emphasis of the report's recommendations for statutory amendments reflects an interest in the protection of the rights of copyright owners. To the extent that the commercial owners control the transmission of works as public distribution, copy, or display, and are encouraged to develop and employ technology to restrict unauthorized, non-compensated access to works, those in the public sector that require enhanced access to copyrighted works may be stymied.

The possibility that the proposed changes may upset or alter the balance, requires a careful examination of the possibility for modifying or altering the proposed amendments to the Copyright Act to accommodate the needs of both users and owners of works. Perhaps after a fuller Congressional examination of the issues, additional changes to the fair use doctrine, as well as additional clarifications to Section 108 exemptions, will be advisable in order to provide parallel clarification and fine-tuning to the public sector exceptions from exclusive rights to publication, display, transmission, as well as to guarantee safeguards to privacy and public access. These changes may be necessary in order to reduce uncertainties for libraries, online service providers, and others.

Will the balance between the rights of users and owners of information services and products, a balance that the copyright law was established to maintain and protect, be upset (as some in the library community have asserted) by the enactment of provisions of H.R. 2441? Congress should investigate this possibility in considering the bill.

Careful consideration of these issues should involve a comprehensive examination of the issues and concerns related to interlibrary loan, document delivery, electronic sharing, electronic reserves, preservation, browsing, and fair

use related to digital works. Such an examination should involve discussion and consultation among representatives from publishing and libraries, as well as other educational groups, meeting together to consider proposals for amending current statutory provisions relating to exemptions or limitations to exclusive rights in copyrighted works. Congress may choose to call on the Copyright Office to convene such a group to examine these fair use issues. Alternately, or in conjunction with the Copyright Office, Congress may want to consider charging the National Commission to perform this examination.

We cannot afford to upset the balancing of rights and limitations which supports the creative and innovative efforts of our society. On the other hand, if provisions of H.R. 2441 merely clarify issues related to the existing balance between copyright property owners and users in order to more effectively exploit electronic and networked information services for the benefit of the public interest, then there should be no objection to providing similar clarification to those portions of the law that set limitations on those exclusive rights.

5.) NCLIS recommendations

In conclusion, I want to thank the Subcommittee on Courts and Intellectual Property of the House Committee on the Judiciary for this opportunity to share these concerns and views. In general, NCLIS recommends that the following factors be used to guide Congressional deliberations concerning H.R. 2441:

A.) Although H.R. 2441 provisions reflect the IITF Working Group's report, the report covers a wider range of issues and topics than the points included in the bill. Congress should consider an examination of those areas of the Copyright Act that are not addressed in this particular legislation to determine if further statutory changes are required to maintain the balance between owners rights and limitations;

B.) Congress should allow time to carefully research and understand the consequences of proposed changes on the general public. Statutory changes must not contribute to the gap between information "haves" and "have nots", especially when it comes to the availability of new information technologies;

C.) Congress should make a special effort to hear viewpoints from all interested parties concerning the proposed changes. This includes librarians from academic institutions as well as users of public libraries, as well as representatives from organizations with specialized interests in digital media;

D.) Congress should take advantage of the assistance of other federal agencies such as the Copyright Office and the National Commission to undertake an examination of the impacts of the proposed statutory amendments. CONFU functions as an informal process and is not assured success in developing guidelines. Rather, Congress should consider establishing a balanced group to establish common ground and to clearly set responsibility for the group to develop legislative proposals that update the balance between owners exclusive rights and the limitations on these rights that serve the interests of the public.

Mr. MOORHEAD. Dr. Tinsley.

**STATEMENT OF TUCK TINSLEY III, PH.D., PRESIDENT,
AMERICAN PRINTING HOUSE FOR THE BLIND, INC.**

Mr. TINSLEY. Good morning, Mr. Chairman, Mr. Boucher, and Mr. Bono.

I am truly honored to testify before this subcommittee on the Copyright Protection Act of 1995. It is crucial that the needs of the blind and visually impaired student population are understood and considered in any amendment to the Copyright Act. The American Printing House for the Blind, APH, a nonprofit agency, has been mandated under Federal act since 1879 to provide educational materials for use by our Nation's legally blind students.

APH provides adapted and specially designed educational materials critical in the education of students who are blind and visually impaired. These materials include textbooks in braille, large type, recorded and electronic formats, tangible teaching devices, microcomputer hardware and software, educational tests and special instructional aides, tools, and materials. Availability of these materials promotes equal opportunity and increases the quality of education for blind and visually impaired students.

These students represent an extremely small segment of the student population. In the current fiscal year, 1996, APH will provide educational materials to 54,763 legally blind students in precollege level programs.

Although the incidence of blindness in the student population is low, the impact of the loss of vision on the individual student is extremely high. Research indicates that 70 to 90 percent of learning occurs through visual input. With this in mind, APH has conducted extensive research to design high-quality accessible textbooks in nonvisual formats. Many factors are considered in production, including contrast, paper color, paper weight, text clarity for large type, and extensive editing for braille translation.

I have a 1996 copyright elementary math textbook, which you can see is highly visual. We are currently translating this into braille, and editing and translating a visual textbook like this can take up to a year to get it in understandable braille format.

In addition to the text, all pictures, diagrams, maps, and figures must be translated into meaningful tactile graphics. Specialized production steps make accessible materials costly and labor intensive to produce.

For example, a translation of a braille map would involve considerable editing. Some factors include the pedagogical emphasis, the complexity of the original print and the uses of colors and symbols. The result is often several distinct maps conveying the same information that is found in the print version.

I have a map, a small map of the District of Columbia, from National Geographic's "Our 50 States," which we have just completed transcribing. It is an atlas. This small map in braille takes nine pages, 11 by 11½, to provide the detail that is provided in the map in an understandable format.

Yet, after the extensive intensive effort to produce these materials, only a small number of copies of each title are needed. APH considers big demand for a braille title to be five copies per year.

The average demand for large-type titles can also be as low as five per year and often only one large type copy of a title is ever needed.

Under the present Copyright Act, APH must seek permission to reproduce books for blind and visually impaired students, often from both the publisher and multiple authors. Since APH serves school systems throughout the Nation, these permissions include a variety of titles. The variety is further increased by the growing use of whole language programs, changing the definition of textbook to include literary works.

The permissions process itself is extremely unwieldy. It usually involves numerous transactions, communications, and many months of effort to gain permission for each title. The time entailed can range from 2 working days to many months, depending on a multiplicity of factors and sometimes APH receives no replies to request for permissions from the publishers.

Specific difficulties in gaining copyright permission under the current Copyright Act include: Permissions are not always timely. Delays can be several months while students wait to catch up with their classmates. Delays are exacerbated by backlogs and staffing restraints at publishers' offices.

The publisher may not hold the rights to a specific format, resulting in permission denial. Large time and sound recording rights are often denied if a publisher hopes to publish in those formats in the future, regardless of any immediate student demand.

Anthologies necessitate researching, requesting, and waiting for as many as 75 or more permissions to be granted for each title. Publishers sometimes impose restrictions on production tantamount to denial. For instance, stipulating a point size that can't be achieved.

Timeliness is essential in braille production. However, the present permissions process works against this need. For example, a braille permission request was sent to a publisher on August 14, 1995. The permission was not granted until November 6, 1995. Thus, 12 weeks of transcription time was lost and precluded any chance of the blind student receiving the material at the same time as his sighted peers did. Large type permissions are often even more complex.

In too many cases, the result of the current permissions process is that it is either impossible to get permission for essential textbooks or impossible to get permission in a timely fashion.

Resources and time expended by APH and the publishers are substantially disproportionate to the minimal impact on authors and publishers. And, despite all this effort, the students are still not receiving textbooks at the same time as their sighted peers. Or more tragically, they are not receiving their textbooks at all.

The reasons for this are many, but very, very difficult to explain to parents and children. The substitute language for the new section 108(A) proposed by the National Federation of the Blind, the Association of American Publishers, and the Library of Congress will greatly assist with the provision of educational materials to blind students at the time the materials are available to their sighted peers.

This amendment will provide long overdue enrichment to the lives of blind students. It is time to put an end to the unintended effect the copyright has of censoring a blind student's access to current ideas, information and educational resources.

On behalf of the legally blind student population of our country, the American Printing House for the Blind salutes the Association of American Publishers for going to the headquarters of the National Federation of the Blind and working toward language for section 108(a), which is beneficial to all.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Tinsley follows:]

PREPARED STATEMENT OF TUCK TINSLEY III, PH.D., PRESIDENT, AMERICAN PRINTING
HOUSE FOR THE BLIND, INC.

It is crucial that the needs of the blind and visually impaired student population are understood and considered in any amendment to the Copyright Act.

The American Printing House for the Blind (APH), a nonprofit agency, has been mandated under a Federal Act since 1879 to provide educational materials for use by our nation's legally blind students. APH provides adapted and specially designed educational materials critical in the education of students who are blind and visually impaired. These materials include textbooks in braille, large type, recorded, and electronic formats; tangible teaching devices; microcomputer hardware and software; educational tests; and special instructional aids, tools, and other materials. Availability of these materials promotes equal opportunity and increases the quality of education for blind and visually impaired students.

Blind and visually impaired students represent an extremely small segment of the student population. In FY 1996, we will supply educational materials to 54,763 legally blind students in pre-college level educational programs. (The statistical data for this population are provided as Attachments A and B.) Although the incidence of legally blind students is low, the impact of the vision loss on the individual student is high.

Research indicates that 70% to 90% of learning occurs through visual input. With this in mind, APH has conducted extensive research to design high quality accessible textbooks in nonvisual formats. Many factors are considered in production, including contrast, paper color, paper weight, and text clarity for large type, and extensive editing for braille translation.

Today's print textbooks are highly visual. It can take up to one year to edit and translate a textbook into an understandable braille format. In addition to the text, all the pictures, diagrams, maps, and figures must be translated into meaningful tactile graphics. Specialized production steps such as these make accessible materials costly and labor intensive to produce.

For example, a translation of a map would involve considerable editing. Some factors considered include the pedagogical emphasis, the complexity of the original print, and the uses of colors and symbols. The result is often several distinct braille maps conveying the same information as found in one print version.

Yet, after this intensive effort, only a small number of copies of each title are needed. APH considers a "big demand" in braille to be five copies of a title per year. The average demand for a large type title can also be as low as five per year. Often only one large type copy of a title is ever needed.

Under the present Copyright Act, APH must seek permission to reproduce books for blind and visually impaired students, often from both the publisher and multiple authors. Since APH serves school systems throughout the nation, these permissions include a variety of titles. The variety is further increased by the growing use of whole language programs, changing the definition of "textbook" to include literary works.

The permissions process itself is extremely unwieldy. It usually involves numerous transactions, communications, and many months of effort to gain permission for each title. The time entailed can range from two working days to many months, depending on a multiplicity of factors. Sometimes APH receives no replies to requests for permissions from publishers.

Specific difficulties in gaining copyright permissions include:

- a. Permissions are not always timely. Delays can reach several months while students wait to catch up with their classmates. Delays are exacerbated by backlogs and staffing restraints at publishers' offices.
- b. Publishers may not hold rights to the specific format needed, resulting in a permission denial.
- c. Large type and sound recording rights are often denied if the publisher hopes to publish in those formats in the future, regardless of any immediate student need.
- d. Anthologies necessitate researching, requesting, and waiting for as many as 75 or more permissions to be granted for each title.
- e. Publishers sometimes impose restrictions on a reproduction tantamount to a denial, e.g., point type size that cannot be achieved.

Timeliness is essential in braille production. However, the present permissions process works against this need. For example, a braille permission request was sent to a publisher on August 14, 1995. The permission was not granted until November 6, 1995. Thus, twelve weeks of transcription time was lost. This lost time precluded any chance the blind student had for studying the material with the rest of his class.

Large type permissions are often even more complex. For example:

In June 1995, APH received a request for large type reproductions for two titles. The intent of the request was to insure that the student received the accessible titles on the first day of school -- the same time as his sighted classmates.

June 21, 1995 - The first permission requests were sent to the publisher.

August 2, 1995 - Permission was granted for a 20 point type reproduction and limited to 5 copies. APH large type production was consulted; 20 point was not possible for these books.

August 14, 1995 - A letter was sent to the permissions manager at the publisher stating the impossibility of a 20 point type reproduction. An amended permission letter was requested.

October 19, 1995 - No response was received to the 8/14/95 letter. APH's permissions librarian phoned the publisher's permissions manager and, after a lengthy discussion, stipulations were set forth for gaining permission from the publisher for one large type copy. Stipulations included a statement of point type in which the books could be produced, research into the commercial availability of the titles, the name of the agency requesting the books, and agreement to limit reproduction to one copy.

November 1, 1995 - A second request was sent to the publisher covering all stipulations and specifying 19 point type reproduction.

December 27, 1995 - The order was canceled by customer, six months after request. The permission was not received; therefore, the student did not receive the books.

January 23, 1996 - A letter was received from the publisher; permission was granted only for 20 point type and limited to 2 copies.

In too many cases, the result of the current permissions process is that it is either impossible to get permission for essential textbooks or it is impossible to get permission in a timely fashion. Resources and time expended by APH and the publishers are substantially disproportionate to the minimal impact on the authors and publishers. And, despite all this effort, the students are still not receiving textbooks at the same time as their sighted peers. Or more tragically, they are not receiving their textbooks at all. The reasons for this are very difficult to explain to the students and their parents.

The amendment to the Copyright Act to be proposed by the National Federation of the Blind, the Association of American Publishers, and the Library of Congress will really improve the process of providing visually impaired and blind students with timely access to learning materials used by their sighted peers. It will provide long-overdue enrichment to the lives of visually impaired and blind students. It is time to put an end to the unintended effect the Copyright Act has of censoring visually impaired and blind students' access to current ideas, information, and educational resources.

Number and Percentage of Students by Reading Medium

	FY 1995	FY 1996
<u>Visual Readers</u>		
Number:	14,002	14,104
Percentage:	26%	26%
<u>Braille Readers</u>		
Number:	5,064	5,271
Percentage:	10%	10%
<u>Auditory Readers</u>		
Number:	4,875	4,658
Percentage:	9%	8%
<u>Prereaders</u>		
Number:	12,580	13,104
Percentage:	23%	24%
<u>Nonreaders</u>		
Number:	17,055	17,626
Percentage:	32%	32%
TOTAL		
Number:	53,576	54,763
Percentages:	100%	100%

Number and Percentage of Students by Program Type

	FY '95	FY'96
<u>State Departments of Education</u>		
Number:	44,497	45,756
Percentage:	83.0%	84.0%
<u>Residential Schools</u>		
Number:	4,516	4,489
Percentage:	8.5%	8.0%
<u>Rehabilitation Programs</u>		
Number:	2,657	2,601
Percentage:	5.0%	5.0%
<u>Programs for the Multihandicapped</u>		
Number:	1,906	1,917
Percentage:	3.5%	3.0%
TOTAL		
Number:	53,576	54,763
Percentage:	100%	100%

Mr. MOORHEAD. Mr. Robinson.

STATEMENT OF RICHARD ROBINSON, CHAIRMAN, PRESIDENT, AND CEO, SCHOLASTIC, INC., ON BEHALF OF THE ASSOCIATION OF AMERICAN PUBLISHERS

Mr. ROBINSON. Thank you.

I am Dick Robinson, chairman, president, and CEO of Scholastic, Inc., an independent publicly owned, family controlled publishing company which is celebrating its 75th anniversary this year.

It is my pleasure to be appearing before the subcommittee today on behalf of the Association of American Publishers, AAP, a national association which represents over 300 companies whose publishing activities encompass every field of interest.

AAP members publish hardcover and paperback books, along with journals, classroom instructional and testing materials, and a wide range of electronic products, including software, CD-ROM's and online data bases AAP welcomes this opportunity to present its views on H.R. 2441, the proposed National Information Infrastructure Copyright Protection Act, because this legislation is not only important to the ongoing innovations in its members' publishing activities but also to the realization of the wonderful unprecedented opportunities for commerce, education and entertainment that the new interactive communications media can offer to all.

Here is how the so-called new media can affect a company like my company, Scholastic. We are the largest publisher of children's books in the world. Our sales last year of all of our products were \$750 million. We distribute these books, which are generally offered at very low cost, through school book clubs, school book fairs and retail outlets.

We also publish 50 classroom magazines, such as "Junior Scholastic," whose combined circulation of 150 million copies per year go to children in U.S. schools. We publish textbooks and instructional software as well as children's television programs, such as those currently on PBS and Fox, based on our book properties, the "Magic School Bus" and "Goose Bumps."

We also create and operate an online service for classroom teachers called the Scholastic Network, which we offer through America Online, Mr. Boucher. We are an international company with operations in England, Canada, Australia, New Zealand, as well as France and Mexico. We have more than 4,300 employees in the United States, and 1,700 elsewhere in the world, for a total of more than 6,000.

We are enthusiastic about the new world of multimedia. We have been publishers of software since 1983, primarily for schools. And we create and distribute such programs as the "Bank Street Writer," "operation Fraud," "Math Shop," and more recently "Wiggle Works," a K-1 CD-ROM reading program, as well as the "Scholastic Network."

As educational publishers, we, of course, serve children of every language group through teachers and schools. We are sensitive to the needs of both advantaged and disadvantaged students in schools and in homes.

What do we need to be successful in the new world of multimedia? We need to be successful in the new world of multimedia?

We need talent, organization, good ideas, a feel for this new medium and for the marketplace, and a lot of daring creativity. But we also need the protection of copyright in the new media as we have had it in print. Here is why: Of the 6,000 employees of Scholastic, about 1,000 are professional writers, editors, artists, software designers, and so on, who create the material we distribute. These people are paid salaries probably amounting to \$40 million annually by our company.

We also have contracts with thousands of authors and artists who create the books we sell. These contracts, of course, require the payment of royalties and we pay perhaps \$30 million in royalties annually. R.L. Stine, the author of our "Goose Bumps," sits down to write a book every Monday morning—every other Monday morning. He writes one every 2 weeks.

Will he do it without the incentive of royalties? Maybe not. Equally important, books which do not sell quite so well but make a contribution to society must be sought out, found, edited, created, marketed, and distributed. Without copyright protection, how will these be developed?

Our gifted writers and editors will not work without paychecks. Our software and internet designers are artists committed to their craft but they also have college loans to pay, children to support and bills that they have to face each month. Of course, royalties and paychecks for the creators of our works are only part of the story. Even where royalties are not at issue, there are huge capital investments which underwrite the production and distribution of creative works in the field of educational publishing, as well as in others.

We are just now introducing a new K-6 reading program in textbooks like the one that Dr. Tinsley just showed you,—also including lots of technology. It will cost more than \$50 million to create.

The willingness to make these investments is premised in large part on a framework of intellectual property law which ensures that the marketplace for creative works will recognize, acknowledge and protect the proprietary rights of those responsible for making those works available to the public.

The protection of copyright in the new technologies is important to creating these new services, which can revolutionize education, and I know you all know this. It will be possible for the computer to track and diagnose children's reading problems and report these to the teachers in ways that will facilitate immediate corrective action. And we can design systems to do that.

It will be possible for online services to bring famous people for live chats in the classroom. In fact, we did that last week with some 4,000 students online with Rosa Parks, in celebration of Martin Luther King Month, through our "Scholastic Network."

Through the internet, it is possible to bring children in a rural classroom live pictures from outerspace and have the children manipulate those pictures. In fact, there is a NASA Web site called "Live From Jupiter," which does just that.

It will be possible to connect children with famous scientists so kids are actually doing experiments with scientists, and children will be able to participate in the complete multimedia, individualized education both at home and at school. But someone will need

to put all of this together. It won't happen without the salaries to pay people. The best creative talent won't be available without the payment of incentives through royalties.

Some idealists may imagine that the current frenzy of activity on the Internet will result in great work from a kind of divine amateurism. Others may dream of government paying for large-scale development. Neither is likely to happen, nor probably desirable.

The market really cannot develop without incentives and it also will not happen without a legal framework that encourages investment to underwrite the production and distribution systems that bring these wonderful products and services to the people who appreciate and benefit from them.

The current enthusiasm for the Internet will certainly diminish without a flow of payments to fund the creativity that will help it expand. Common sense really tells us all of this. My first job was as a teacher of high school students in Evanston, IL. When I went to work for Scholastic, I used my teaching background to develop a magazine called Scope for disadvantaged kids in school.

It became successful with a circulation of 1.5 million copies per week, but we had to charge for that magazine in order to fund the creativity to pay for the artists, the editors, the marketing, for permissions for the art and literature in the magazine that Dr. Tinsley just mentioned, not to mention the paper, postage and printing. All of this was paid for by schools and protected by copyright. The same will hold true for new services of all kinds on the Internet.

The creativity and organization which will produce good services will need to be protected by copyright in order to generate the flow of payments which will support these services. In general, AAP members endorse the widely-held view that, even without revision, current copyright law applies to expression that is created and disseminated in digital form and through electronic media. But we also believe that by enacting a few modest and carefully crafted amendments, like those proposed in H.R. 2441, Congress can provide greater certainty with respect to the act's application to expression and distribution based on the new interactive digital technologies.

AAP supports H.R. 2441 in its overall approach to clarifying the act's application to digital works of media. In our formal statement submitted for the hearing record, we discuss the provisions of the bill and explain our suggestions for revisions which will better achieve the goals of the bill and will avoid certain unintended results in amending the act.

I am not a lawyer, of course, or even a copyright specialist, so I will not attempt to summarize each of the substantive revisions that are discussed at greater length in AAP's statement. Of course, I will be happy to answer whatever questions I can about these matters, or we will provide further information as requested for the record.

But in closing, let me briefly touch on several points which seem relevant to what my other panel members have said. First, I want to emphasize the satisfaction of AAP and its members in being able to reach agreement through cooperative efforts with representatives of the blind community and the Copyright Office on proposed revisions to those sections of the bill concerning access for the blind

to published materials in digital form. Dr. Tinsley expressed this very beautifully a few moments ago.

And thank you for your support of us, as we feel very close to you on this issue.

Second, let me note that AAP, which has long supported the act's existing library exemption to further the goals of preservation and collection maintenance, generally supports the bill's proposed amendments to permit libraries to create and use digital copies of protected works without permission from copyright holders for these purposes.

We ask, however, that the proposed amendment be revised to clarify that this authority to create digital versions of library works is only for preservation and maintenance and not for purposes of circulation.

Finally, I want to repeat the publishing industry's longstanding support for the continued application of the Copyright Act's fair-use provisions to all forms of copyright expression, including digital and electronic works. Notwithstanding some statements we have heard, we neither see nor seek anything in H.R. 2441 that would change current law with respect to fair use.

I hope I have communicated the publishers' enthusiasm for the world of the new media and the world of copyright in advancing creativity, Mr. Chairman.

Thank you for your consideration. Of course, I will be happy to answer any questions you may have.

[The prepared statement of Mr. Robinson follows:]

PREPARED STATEMENT OF RICHARD ROBINSON, CHAIRMAN, PRESIDENT, AND CEO,
SCHOLASTIC, INC., ON BEHALF OF THE ASSOCIATION OF AMERICAN PUBLISHERS

The book, journal and new media publishers in the United States, represented by the Association of American Publishers ("AAP"), welcome the opportunity to address H.R. 2441, the NII Copyright Protection Act.

As Chairman Moorhead said in introducing this legislation: "With ... evolutions in technology, the copyright law must change as well to protect one of our Nation's most valuable resources and exports, the products of our authors."

The members of this Association play a significant role in creating those resources and exports. Ensuring protection of copyright on the National Information Infrastructure (NII) is vital to our industry. It also is critical to our country if the U.S. is to maintain its preeminence as the world's leading creator and disseminator of ideas, information, entertainment and education. We need effective copyright laws if this crucial segment of our economy is to continue to thrive and grow, creating new jobs and generating new revenue.

INTRODUCTION

AAP's members are a diverse lot. We are large, multi-faceted corporations whose names are household words; we are also small literary presses, non-profit university presses, regional publishers, professional and scholarly societies. We are located in New York, Chicago, Boston and San Francisco; we are also located in Center City, MN, Mountain View, CA,

Sarasota, FL, and Ithaca, NY. Through direct membership and through formal affiliation with regional publishing associations, such as the Publishers Association of the South and the Rocky Mountain Publishers Association, we comprise some 300 companies publishing hardcover and paperback books in every field, including general fiction and non-fiction, poetry, children's books, textbooks, Bibles, reference works, scientific, medical, technical, professional and scholarly books and journals, materials for classroom instruction and testing. Members of our Association produce computer software and electronic products and services, such as CD-ROMs and online databases.

The publication of hard cover and paperback books in printed form and their distribution to the nation's bookstores will continue for a long time. But, the computer age and, more recently, the explosive growth of the Internet and online services are creating a new electronic marketplace in which the product, the service and the mode of delivery are assuming new forms. AAP members are actively providing education, information and entertainment to consumers in new forms. Increasingly common today, portions of, supplements to and even entire copies of traditional print works are available in new media. In fact, some works are published by our members exclusively in digital format.

Moreover, these new products can be delivered to consumers both through a variety of commercial outlets and directly to their schools, offices and homes. They can be sent over copper wires, cables and through the air for capture by computers, terminals and television sets and most likely combination set/desktop top devices. These transformations are occurring at a breathtaking pace; AAP members are leading participants in this exciting new marketplace.

But, participation will be inhibited if legal protection for their creations is not available. Without an effective legal foundation for the protection of intellectual property, the most commercially valuable content will be withheld and the potential to create new first rate multimedia and digital content will simply not develop, let alone flourish. Copyright has always been the foundation of our vibrant intellectual property industries and the underlying tenet of the bill before you continues to support that critical premise.

The constitutional goal of promoting "the Progress of Science and useful Arts" remains a modern goal and the legal system of copyright protection remains the right way to achieve the goal. Indeed, the AAP concurs with the general view that, as it stands even without revision, copyright law currently covers expression that is created and disseminated in digital form over electronic networks. It is a testament to the Members of Congress who developed and passed copyright legislation in prior years that the statute works and has the flexibility to apply to forms of expression and distribution never contemplated at the time of passage.

However, by enacting modest and carefully-drawn amendments to the Copyright Act, Congress can provide greater certainty which stimulates investment and job creation and which will ensure continued U.S. leadership in the creation of intellectual property. Moreover, with changes that accommodate new technology, with the hallmark flexibility of the Act and without shifting the balance of interests and needs between owners and users of intellectual property, this Congress can set the path for the rest of the world to follow.

Finally, by way of introduction, it must be noted that filling gaps in the Copyright Act to meet new technology will not interfere with the robust free speech and exchange of ideas on which this country is built. Copyright protects expression, and only that expression over which the author has chosen to exercise some control. Those who want the world to make any and all use of their works remain unencumbered; they are as free to publish on the Internet as they are free to publish on paper. Nothing you are considering today changes that.

STATUTORY PROPOSALS

1. TRANSMISSION

In the interest of clarification, the AAP supports the inclusion of the word *transmission* in all of the proposals contained in Section 2 of the bill. These four small changes in the Copyright Act confirm application of the law, as it stands today, to expression that is published, distributed and imported electronically, rather than in hard copy. These proposals neither expand nor shrink rights nor do they create conflicts or confusion among licensors, licensees and consumers of any particular rights in a given work.

The specific inclusion of "transmission" in the distribution right in Section 106(3) and amendments to the definitions of "publication" and "transmit" in Section 101 are tidy statements of how the law currently applies. So, too, is inclusion of transmission in Section 602 on infringing importations. These amendments do not either expand or contract any of the rights or obligations under other sections of the copyright law. They do not detract from proprietors' ability and right also to maintain that a transmission is a "reproduction." Moreover, they do not control whether or not there has been a public "performance" or "display." Finally, in this world where the NII is really an integral part of the Global Information Infrastructure (GII), inclusion of "transmission" in Section 602 clarifies the notion that an infringing importation can occur over wires or through the air.

Because we see the provisions of Section 2 to be beneficial in their clarification and neutral in terms of impact in other areas of the law, we differ with one view expressed by the Register of Copyrights in her testimony before you on November 15, 1995. The Copyright Office noted they did not see, at this point, any situation where treating a work transmitted online as published would be inappropriate. This interpretation, intending to expand the reach of the mandatory deposit requirement of Section 407 of the Copyright Act, has fueled some concern which we look to Congress to assuage.

The AAP believes that the analysis of whether or not a work has been published under the Copyright Act will remain subject to the same analysis as it is today, whether that work is delivered in hard copy or transmitted over wires. The touchstone is whether copies of the work are distributed to the public. Otherwise all online communication, even private email, would be deemed published for mandatory deposit and other Copyright Act purposes. This is not, and should not be, the law.

Often AAP members, or more likely their authors, are using transmission to convey or share comments on a work-in-progress. Most likely, segments of scientific and professional publishing will use the NII increasingly to engage in collaborative research and writing and/or to seek peer review and commentary before the work is considered finished or, indeed, *published*. In short, transmission of a work does not and should not *ipso facto* constitute publication. We read the changes proposed by the bill to achieve the necessary result -- to make clear that although publication can be

achieved by transmission, not all transmissions will necessarily constitute publication.

Moreover, if and when a work is published by transmission, it is critical that the deposit requirements accommodate the different needs of such works so that the acquisition activities of the Library of Congress do not subvert the provisions of licensing and other use agreements. Arrangements with the Library of Congress on the use of CD-ROM products, placed on deposit by AAP members and others, have worked well and we would expect the same study and adoption of appropriate rules to govern the deposit of other electronic forms of content.

With this caveat, which we believe can be clarified in the legislative history, AAP supports Section 2 of the bill without any suggested amendments. Enactment of these provisions would remove from debate any theory that expression is in the public domain because the publisher chose to transmit the work, rather than truck the work, to the reader.

2. NEW SECTION 1201 -- CIRCUMVENTION OF COPYRIGHT PROTECTION SYSTEMS

There are differences between print and electronic technologies and the proposed new Chapter 12 of the Copyright Act is responsive to them. It is the ease and speed of perfect reproduction, broad dissemination and undisclosed manipulation of works on the NII that make it imperative that the users obey, and understand they must obey, the rules of the road.

Too often there has been an unfortunate culture of adulation, rather than one of abhorrence, when "hackers" break into systems and files thought to be secure; the law must support copyright proprietors who use technological tools to protect their works. This is an area where the law must be supplemented in order to accomplish its overall purpose.

New Section 1201 of the Copyright Act would prohibit, for the first time, the importation, manufacture or distribution of any product or device or performance of any service, designed to circumvent any technological copyright protection scheme. The importance of including such a provision in the law cannot be overstated. Our only concern is that, as drafted, the provision does not have the strength it will need to get the job done. We

have two suggestions to revise this proposal to serve as a true deterrent. First, the definitional standard should be tightened; second, willful violation of this provision should carry the criminal sanctions of the new Section 1204.

The definitional problem arises from use of the weak phrase *the primary purpose or effect*. AAP is concerned that this standard may not be susceptible of proof. The very reason that this new provision is required -- the increasingly sophisticated and advancing techniques and devices to pierce security systems -- may preclude mere mortals, including copyright proprietors, their attorneys and the judges from whom they seek help, from being able to prove that some new software or code has as its primary purpose or effect, the defeat of a copyright protection system.

We urge you to realize how difficult it will be for the victim of the infringement to counter the technical presentation of a defendant in such an action regarding all of the other potentially "legitimate" activities the defendant may allege the product, device or service was intended to or can accomplish. And, even more extreme, consider the consequences if the real or a companion purpose of the product, device or service is not copyright infringement, but accessing encrypted credit card information. While that may be illegal, arguably it would not give the copyright proprietor, whose work is also infringed by the device, rights under this new section. Publishers and other copyright proprietors need to have a standard that gives them a chance to prove a violation when a circumvention technology threatens or inflicts real injury. AAP shares the concern of many other copyright proprietors that the good intention notwithstanding, the definition in this section fails to provide an effective remedy to a serious threat.

We fully support the position of the Register of Copyrights in her testimony to the effect that it seems inconsistent to provide criminal penalties for violation of the integrity of copyright management information but not for the circumvention of copyright protection systems. We agree with the Copyright Office that the greater potential threat to the economic interests of the owners comes from the interference with copyright protection systems. We urge, therefore, that Section 1201 be included in the application of criminal penalties in Section 1204.

Moreover, the AAP shared the dismay of many when the indictment in the *LaMacchia* case was dismissed. It is wrong that the current laws do not suffice to hold the intentional activities of flagrant infringers to the test of criminal liability because they seek a perverse glory, rather than financial gain, from their hacking. We urge that the legislative proposals drafted and introduced in the Senate as S. 1122 be included in the current legislation and be passed as part of this Copyright Act amendment.

3. NEW SECTION 1202 -- INTEGRITY OF COPYRIGHT MANAGEMENT INFORMATION

AAP supports the intent of the proposed new Section 1202 which would establish a criminal offense for knowingly providing false copyright management information, for knowingly removing or altering copyright management information affixed by the copyright owner, or for distributing or importing works with removed or altered copyright management information. In part, this proposal builds on principles already codified in the Lanham Act and other laws, but specific targeting of what is considered unambiguously offensive conduct would be helpful to the creative community.

As valuable and necessary as these provisions are in the electronic world, AAP members are concerned over their potential misapplication. Questions have been raised about whether they could lead to disputes or even criminal charges in connection with age-old business practices such as "ghost" writing, "as told to's" and other forms of collaborative and pseudonymous works. We also wonder how this proposal would affect legitimate disputes over the ownership of, or right to exercise one or more, but not all, of the exclusive rights in a work. These concerns are as real to producers and distributors of films, records, software and, particularly, multimedia works as they are to publishers. To address these questions and concerns, we recommend that proposed Sections 1202(a) and/or (c) be amended to clarify that the offense relates to parties intending to remove or alter pertinent ownership and licensing information, rather than the current catch-all language that may ensnare unwitting copyright proprietors in its net.

Limiting the definition accordingly also would accommodate concerns expressed by the Register regarding possible conflict with the existing

criminal offense provisions of the Copyright Act, particularly Section 506(c) and (d). We hope to have the opportunity to work with the Congressional and Copyright Office staff to assist in fine-tuning these provisions to achieve their goals.

But we urge you not lose sight of the importance of those goals. Developing effective protections for copyright management systems is a critical need. AAP members are deeply engaged in developing their own copyright management systems -- using new technology and exploring new ways of doing business. Unless there is useful legal protection for the variety of management and protection systems being developed to grant site licenses, provide controlled yet flexible access, to convey transmission or downloading permissions, in short to allow uses of all sorts, the multiplicity of opportunities to offer broad access to different markets will not happen. There are exciting opportunities for new ways of doing business and providing access that the interests and needs of the marketplace -- both commercial and not-for-profit -- will support, if indeed not mandate. But without the ability to maintain control which is a major, if not the, underlying tenet of our copyright law, the technology will become and remain a deterrent rather than a facilitator for creators, their publishers and, of course, for the public as well.

4. REVISED SECTION 108 -- LIBRARY EXEMPTIONS

Section 108 of the Copyright Act grants specified rights to certain libraries to reproduce and distribute materials, even in some instances whole works, without the authorization of the copyright proprietor. The proposed amendment to Section 108 is intended to allow those designated libraries, in the specifically described situations, to use digital technology to preserve or replace perishing print materials. AAP endorses the goal of preservation, but agrees with the reservations of the Copyright Office on the language problems in the current draft. Revisions are needed to clarify that both the change from one to three copies and the authorization to make digital copies apply only to subsections (b) and (c) of Section 108.

The publishing community worked diligently with the library community in fashioning the added exemptions for libraries that currently are found in Section 108 of the Copyright Act and it is our intention to work equally constructively to bring those concepts into the digital era. The President of

the AAP serves as an active member of the Commission on Preservation and Access and many members of our industry have participated in the Conference on Fair Use, called for by the Administration's Working Group on Intellectual Property, to explore the needs for and ways of preservation. Publishers appreciate both the need to preserve our heritage and the significant contribution made by librarians to the effort.

In addition, publishers recognize that the current practice of librarians is to make three facsimile copies, rather than one, for purposes of preservation and replacement. We understand that one of those is literally stored in "iron mountain" as a "doomsday" copy, that one is placed in the archive of the library collection as a master copy and used as needed and that only one copy is circulated. Although this practice does technically violate Section 108 of the law, the publishing community has accepted *de facto* the practice since its benefits to society clearly outweigh the potential harm so long as only one copy is allowed in circulation. Hence, we have no objection to the concept of three copies rather than one, provided only one is in use.

The concern arises with inclusion, for the first time, of the right to create *digital* copies for purposes of replacement and preservation. Recognizing the importance of and need for preservation and cognizant of the wonders of the new technology, publishers do not want to interfere with the best way to ensure preservation. We are prepared to support amending Section 108 to allow creation by libraries of digital versions of works for preservation, provided it does not allow the libraries to treat such digital version as part of its collection for the whole range of library activities. It is imperative that any digital copy so created, by definition without authority of the copyright proprietor and hence without the copyright protection scheme the proprietor might well employ, not be used for circulation. Once a work is launched into the NII without such protection, its further reproduction and transmission potentially is without limit. Distribution is and must remain the exclusive right of the proprietor.

In addition to ensuring that the digital version created by the library does not become part of the collection for the purposes of circulation, the legislation should be amended to achieve the following three other clarifications:

First: digital reproduction should be limited to two digital copies -- one "doomsday" copy and one archive copy. From that archive copy, the library can create an analog copy for use in the library and to meet circulation needs. If and when that analog copy is no longer usable, the library can create a replacement analog copy from its digital archive.

Second: the digital version allowed must be defined as a bitmap image of the page. This will achieve preservation better than any other technology since it is an exact picture of the page. And it will avoid potential misuse that can occur with a fully digital file which can be incorporated into a data base, form the foundation of a derivative work, or be manipulated in ways in which its authenticity is put into question.

Third: the library's right to create digital versions must apply only to works where no digital version has been made available by the proprietor. Because publishers and other proprietors are now creating their own digital versions of works previously available only in analog form -- whether old movies going onto laser discs and DVDs or sections of or whole books being added to data bases -- the preservation exemptions of the law should not extend to the creation of new digital versions of works that are already available in digital form.

As the capability of the hardware and software improves and/or the market shifts to new operating systems, computer languages or other variables, proprietors must continue to have the exclusive right to choose whether and when to provide their materials in the new versions. For years we have seen software developers serve different requirements and users by creating different versions of the same programs for DOS and MAC and now Windows95 machines. Likewise, the publisher of an electronic encyclopedia on CD-ROM updates, upgrades and adapts to new technology on a regular basis. A library should not be allowed to create a new digital version from an older generation of digital work in order to use it on the newest equipment, all in the guise of preservation. If a library is concerned about the ability to access an old version of a product that cannot be used on the newest machinery, the solution is simple; keep the old machinery or get permission from the copyright proprietor to create the derivative work. This is not a question of preservation.

The foregoing proposals for revision to the bill will achieve the intended goals of preservation without effectively stripping the proprietor of the exclusive rights to create derivative works and to reproduce and distribute the work.

Indeed, publishers have serious concerns about the distribution of analog copies among libraries, as allowed by the interlibrary loan provisions of Section 108(g)(2). Although our Association concurred with what are now the statutory exemptions, our members have discovered that the law has problems, even before electronic issues are considered. Section 108(g)(2) attempts to accommodate interlibrary loan without allowing the practice to undermine publishers' revenues. Yet because the statute speaks to the extent of copied material received by a borrowing library, rather than the amount of copying done by the supplying library, it is fatally flawed. The statute, arguably, could allow only one library to buy the work and provide a copy of it to every other library in the country.

The publishers fully endorse broad access to their materials; they want the public to read them. But, they cannot sanction a situation where they create the work, sell a copy and see the library become the publisher to the rest of the world.

With the advent of digital technology and networks, it would be a catastrophic mistake to permit the existing formulation to extend, even inadvertently, to digital versions created by a library. This is an issue being studied in many circles, including the Conference on Fair Use, and we believe it is premature to stick any toe into these waters until an assessment of the real-life impact of any changes is made.

In short, with some thoughtful redrafting, we believe that the goals of the changes to Section 108 -- to preserve the decaying books of our heritage -- can be achieved, and enhanced using new technology, without opening the floodgates of the NII/GII to the wholesale unauthorized dissemination of complete works, thereby vitiating the whole basis of copyright.

5. NEW SECTION 108A -- EXEMPTIONS FOR THE VISUALLY IMPAIRED

The AAP supports the goal of improving the access of the visually impaired to the materials that we publish. AAP members work actively to provide educational materials, texts and the like to the blind population simultaneously with their availability to the sighted population. We were early advocates of amending the copyright statute to achieve the admirable goals of the new Section 108A. Hence, we and organizations representing the blind, with whom we have a long and productive working tradition, were somewhat puzzled when the Administration's Working Group proposed the legislation as introduced. The bill could create an infrastructure that would directly compete with and impair important growth businesses of publishers for (1) large-type books and (2) books on tape or CD. At the same time, the bill would make the blind wait a full year from first publication before any special statutory exemptions would begin.

The AAP has continued to meet with groups representing the blind to craft an amendment which will achieve the goals and avoid the problems of 108A as introduced. Our joint goals have been to (1) tighten the definitions to help the right beneficiaries and avoid impairing large-type and audio publishing and (2) ensure that access is immediate, rather than delayed. It is with pleasure that we can report we have achieved a consensus proposal which is attached for your consideration. This substitute has the endorsement of the Copyright Office of the Library of Congress and the National Federation for the Blind; we are assured that the entire blindness field is supporting this language.

OTHER CRITICAL ISSUES

FAIR USE

Contrary to some press reports and commentary that has circulated, nothing in the legislative proposals before you changes the fair use provisions of Section 107 of the Copyright Act, and/or the decades of common law decisions from which it was developed. Moreover, our members want to be sure that the Association convey in our testimony the importance that we attach, both as publishers and on behalf of our authors, to the fair use defense contained in the copyright law. Indeed, publishers have previously

come to Congress to ensure that fair use would apply to all works, including unpublished works. It is not our intention, nor our desire, to see the diminution of fair use principles in the digital world. The law, common and statutory, has accommodated changes in technology and in businesses and has worked reasonably well for all concerned. The publishing community believes there is no reason that we, our authors, our readers and others cannot continue to rely on the factual analysis process required by Section 107 for all types of works, including digital ones.

This does not mean that the application of fair use in the digital world is static or even capable of rigid definition. There is a digital difference and its impact is yet to be fully understood. Accordingly, the Working Group convened a Conference on Fair Use to study whether guidelines, comparable to those existing for educational and classroom use of traditional print and other analog materials, could be achieved for digital materials and activities. AAP not only attends, but actively participates in and serves on the Steering Committee of the Fair Use Conference. Topics discussed have included: creation by students and teachers of their own multimedia works, use of technology by reserve rooms in universities, permissible interlibrary loan, increasing uses of distance learning and life-long learning, and the unclear meanings of vocabulary when applied to the new world. We have learned that comfortable words like "browsing" and "resource sharing" no longer mean the same thing to all who use them. In short, we have learned that in many of these areas, it is premature to write new rules. Many of the goals the "users" want to achieve may be available without the adverse impacts feared by the "proprieters" if we give the technology more time to develop and we learn from experience.

ONLINE SERVICE PROVIDER LIABILITY

Another area where we believe Congress has been wise to defer any amendment to the Copyright Act is rules for assessing liability for those who provide online services and/or Internet access. The AAP is keenly aware of and sensitive to the requests and arguments of those in these businesses. We appreciate concerns about the risk of imposing strict liability for infringement of materials of which the provider was not and arguably could not have been aware. Indeed, many members of our Association have expressed concern about their own potential liability when they invite members of the public to chat with their authors, with other readers, and to

share ideas and information online. It is not an easy subject to resolve. Publishers have met among themselves to try to fashion a cohesive position on this issue and they have participated in the series of meetings organized by the Creative Incentive Coalition and the Interactive Services Association.

While there is no unanimous view among members of our Association, the consensus reached by most is that the law in this area should not currently be modified. First, clearly the businesses are varied, with different levels of potential knowledge and control and with different practices and procedures available to them. Second, the technology is improving and may well enhance the ability to control illegal use of the networks. And, third, the small but growing body of case law is demonstrating that the current statutory provisions are not without flexibility for judicial discretion. Hence, with so much in flux, the AAP believes it is advisable to defer legislation in this area for the time being. It can be re-examined should the dire results that some have predicted, but which have not in fact occurred, actually materialize.

Rather than diminish the statutory responsibility of those who are at the nerve center of the NII, copyright proprietors need them to have a stake in the process. At this juncture in the still early life of the NII and GII, copyright proprietors need help in raising the copyright consciousness of the online community. We believe that the online service providers can and must play an effective role in that process.

MANUFACTURER RESPONSIBILITY FOR ANALOG WORKS

AAP members have published, still do publish and probably always will publish on paper -- in notebooks, textbooks, trade books and journals. While silicon chips may be as ground breaking as the Gutenberg printing press, we do not believe they will lead to the end of the printed page to supply education, entertainment, enlightenment and information through words, charts, graphs, photographs and other illustrations. Uncontrolled photocopying and scanning might.

In efforts to control the rapid spread of massive illegal photocopying, AAP members have successfully litigated against unlicensed copy shops. The Association and its members work with universities and bookstores, librarians and professors to spread knowledge of the law and good

copyright practice to college campuses and corporate libraries. Our members have been active in the creation, development and growth of the Copyright Clearance Center to facilitate lawful photocopying.

Society has seen the disappearance of the sheet music business because of illegal photocopying. And while the book, journal and other publishers have survived the world of traditional photocopying, it is not altogether clear how well they will survive unregulated deployment of the new copying equipment. Although not wanting to be melodramatic, publishers do fear for their future, and the well-being of their authors, when looking at a world with low-cost, easy-to-use ubiquitous scanners, copiers, and binders.

Yesterday's slow one-copy-at-a-time process, where you had to stand by and feed in page-by-page, and which produced continually inferior copies is, indeed, yesterday's machine. In contrast, today's equipment allows the user to drop a thick pile of printed pages into a hopper whence they can be scanned, stored and digitized for future retrieval and searching and editing; they can be transmitted, downloaded, printed and bound, all without a human being standing by, without any diminution in quality, with unlimited quantities distributed via networks to any and every place on the globe, all without any authorization by, or even knowledge of, or compensation to the proprietor. Publishers believe that before it is too late and before this admittedly exciting technology swallows copyright protection altogether, the manufacturers of this equipment must be asked to work on solving the problems that their increasingly advanced machines are causing.

Heretofore manufacturers have, inappropriately we believe, relied on the Sony/Betamax case. While holding that the use of VCRs to make time-shifting copies of broadcast TV programs for individual home viewing was a fair use, the Supreme Court plurality also noted that the VCR could be used for a range of lawful purposes, thereby suggesting its manufacturer should not be liable even for an infringing use. We do not believe manufacturers should hide behind this dictum. Simply because a machine can be used without infringing copyright should not lead policy makers to close their eyes to the purpose, design and broad anticipated uses of such devices to reproduce copyrighted works, or to the responsibility of the manufacturers of these devices to participate in the search for solutions to control copyright infringement.

We are distressed to see print and television advertising by major companies such as Xerox, AT&T, HP, Ricoh, Canon and others inviting, presumably with lack rather than malice of forethought, the indiscriminate digitization, modification and transmission of materials, without regard to whether they are inducing and promoting copyright infringements. We have seen advertisements showing the copying of books by machines with spine saver components and we have seen advertising promoting the scanning and faxing of whole books.

We understand that yet another device is far along in development by manufacturers -- the page-turner copier. Such a machine would do all of the scanning and storing and faxing and duplicating offered by the current devices. The added element of page-turning capability quite simply would allow the equipment to break what is today's most practical barrier against widespread copying of printed materials -- namely, the binding.

Congress has made clear its acceptance of the principle of manufacturer responsibility in enacting the Audio Home Recording Act as Chapter 10 of the Copyright Act, requiring that certain devices be designed in a fashion to implement a particular copy protection system. Indeed, we think that awareness and increasing acceptance of the principle of manufacturer responsibility readily leads to acceptance of a relationship between the traditional principles of "vicarious liability" looking to the ability to control, and the logic and ethic of our belief that if the manufacturers of the new replicating and transmitting technologies have or can develop infringement-controlling technologies, they well ought deploy and pursue them as a matter of responsible business behavior, policy and law.

We noted that, in its White Paper, the Working Group urged the equipment manufacturing and copyright industries to work together on bilateral solutions. At this time the AAP has determined to follow that counsel and encouragement and we have initiated such discussions. We want to explore combinations of better educational and advertising practices, and the possibility of technological devices to control or at least account for scanning, storing, copying and transmitting. We will see where these discussions will lead us.

Hence, we do not seek any legislative solution at this time. But, we urge that your legislative findings highlight the concerns about these new copiers

and their links to the NII and GII. We hope you will join with us to call on the manufacturers to devote substantial and serious efforts to develop and employ technological tools and to engage in educational practices which will facilitate copyright management and compliance.

CONCLUSION

Our industry appreciates your attention to our thoughts on this legislation. We hope that they will be helpful to you in navigating through some uncharted territory, both in assessing the legislation before you and in contemplating some issues for future consideration. So far, the U.S. has taken the global lead in this effort which is only fitting to reflect and ensure our position as the world leader in the creation of intellectual property. We hope that will continue.

U.S. copyright industries are a vibrant sector of American business, culture, education and life and we appreciate the attention shown by Congress to making it possible for the creative process to flourish. We thank you for your understanding that protection of intellectual property is the surest way to nurture yet more creativity and to spread its benefits -- material, as well as intellectual and spiritual -- to all in society. We are eager to assist in the ongoing process in any way that we can and hope you will call on us as the process proceeds.

Thank you.

NPB PROPOSAL
AMENDMENT PROPOSED TO H.R. 2441/S. 1284

(a) On Page 2, line 18, strike "visually impaired" and insert in lieu thereof "blind or other persons with disabilities."

(b) On Page 3, line 13, strike "visually impaired" and insert in lieu thereof "blind or other persons with disabilities."

(c) On Page 3, strike the text beginning on line 15 through line 2 on Page 4, and insert the following:

Section 108A. Limitations on exclusive rights: Reproduction for blind or other persons with disabilities

(A) "Notwithstanding the provisions of sections 106 and 710, it is not an infringement of copyright for an authorized entity as defined in this section to reproduce or to distribute copies or phonorecords of a previously published, nondramatic literary work if such copies or phonorecords are reproduced or distributed in specialized formats exclusively for use by blind or other persons with disabilities as defined in this section.

(B) As used in this section, the term--

(1) "authorized entity" means a nonprofit organization or a governmental agency whose primary mission is to provide specialized services relating to training, education, or adaptive reading or information access needs of blind or other persons with disabilities;

(2) "specialized formats" means Braille, audio, or digital text which is exclusively for use by blind or other persons with disabilities; and

(3) "blind or other persons with disabilities" means individuals who are eligible or may qualify in accordance with section 135a of Title 2, United States Code, to receive books and other publications produced in specialized formats.

(C) Copies or phonorecords made under this section--

(1) Shall not be reproduced or distributed in a format other than a specialized format exclusively for use by blind or other persons with disabilities, and any copies or phonorecords made under this section shall bear a notice that any further reproduction or distribution in a format other than a specialized format is an infringement; and

(2) shall include a copyright notice identifying the copyright owner and the date of the original publication.

(D) The provisions of this section shall not apply to standardized, secure, or norm-referenced tests and related testing material.

Mr. MOORHEAD. Thank you.

I hope the jet propulsion laboratory had something to do with your "Live from Jupiter."

Mr. ROBINSON. Yes, it did, of course, yes.

Mr. MOORHEAD. Before we proceed with questions, I would like Mr. Gashel, the director of governmental affairs for the National Federation of the Blind, and John Kelly, of Recording for the Blind & Dyslexic, to come to the table and join the other witnesses on the panel.

I have one specific question for them, but I think it might be helpful to have them join us.

I thank both Dr. Tinsley and Mr. Gashel, along with John Kelly, and the Association for the American Publishers for their leadership in reaching an agreement on an amendment to H.R. 2441, which would preserve the exemption for visually impaired but narrow its scope. I think that is very, very important.

Mr. Gashel, in your capacity with the National Federation of the Blind, you represent visually impaired consumers as distinguished from publishers. Can you tell us why the agreement with the publishers on the amendment to H.R. 2441 is significant?

STATEMENT OF JAMES GASHEL, DIRECTOR, GOVERNMENT AFFAIRS, NATIONAL FEDERATION OF THE BLIND

Mr. GASHEL. Well, Mr. Chairman, thank you very much.

I want to really take my hat off to the publishers for reaching this agreement. For us it is a breakthrough because we are really talking about formats such as braille, which I am holding up right here, and audio recordings and digital text which other people cannot use. We call them in the agreement and in the proposal for your consideration, specialized formats, and that term is carefully defined in the legislation. So we are talking about making material available to blind people, in my case, who simply cannot use ordinary print.

I submitted testimony for your—for the record and pointed out that I am not a book-buyer, and I think this became very clear to the publishers. I would like to be a book-buyer, and if I could see, I would be a heck of a book-buyer, that is for sure. I would frequent book stores quite a bit. But we cannot do that.

So short of that, it was really essential in talking with the publishers to get an agreement for really immediate reproduction. We shouldn't, as Dr. Tinsley has pointed out, have to go through every time the permission cycle and all the doubt that is involved in that. And, quite frankly, Mr. Chairman, a lot of times governmental agencies are involved in seeking these permissions and they can't spend one dime for the books we need until the permissions are granted. And so, therefore, blind people cannot get those books for the kind of delays that were mentioned.

But the publishers recognize this and, with careful definitions that we have crafted in the proposed amendment, have agreed to have this provision, and I think are excited about this provision.

We certainly are.

Mr. MOORHEAD. Thank you.

Ms. Simon.

Ms. SIMON. Yes, sir.

Mr. MOORHEAD. How can we be sure that a person will not access a digital work through a library at no cost and disseminate the work unlawfully?

Ms. SIMON. To tell you the truth, we cannot be sure about that and that is why the fair-use provisions written into the present law need to be carefully scrutinized before we proceed further on these amendments to the Copyright Act. The amendments, as proposed, deal with section 108.

The fair-use standards in the copyright law have four definite guidelines. They are bright-line guidelines for copyright use. And this—this section 107 is not addressed in H.R. 2441.

The white paper from the Information Infrastructure Task Force talks about fair use and the possibility of this being considered. But they have put off the definition of these guidelines by creating a Conference on Fair Use, known as CONFU, which is still in the process of deliberating what these guidelines might be.

And when we consider what the problems are, they include multimedia, library preservation, interlibrary loan, browsing, distance learning, and electronic reserves that libraries are concerned about. So without these guidelines, we are in danger of falling into a trap here. And that is why we are suggesting that further consideration be given to a hearing, some kind of a conference established by Congress. Such an official body would not be CONFU. CONFU has no congressional mandate. It is only an informal arrangement which has no mandate to produce an agreement. So we think that a little more time and a little more study might make it possible for library users interests to be addressed.

Mr. MOORHEAD. What should be done about the interlibrary loans in the digital environment?

Ms. SIMON. That is part of the problem. We are not sure where we stand on interlibrary loans in this digital environment if there are no guidelines set out for libraries. Right now, the interlibrary loans are proceeding as they have and the various organizations say we have no quarrel with the fair-use provisions as written in the law right now. But they do not take into consideration this new act that we are considering now. H.R. 2441 might put a whole different light on interlibrary loans for the digital transmission. That is why we have to be very sure where we are going on this bill.

Mr. MOORHEAD. Is it necessary for a library to be able to maintain three copies of the digital form?

Ms. SIMON. I think two copies would be enough, but I am not a librarian. I think this is a fine point, but—maybe one copy would be enough, if that is a permanent copy. But in the interest of preservation, I would say that if the libraries feel they need three copies, yes, they should have three copies.

Mr. MOORHEAD. Dr. Tinsley, there seems to be general agreement the exemption in H.R. 2441 regarding the visually impaired is too broad as drafted. Does anyone see any disagreement with the amendment you have proposed?

Mr. TINSLEY. The new section 108(a) as agreed upon by AAP, the Library of Congress, and NFB is very satisfactory. It puts us miles ahead of where we were.

Mr. MOORHEAD. Mr. Robinson, why is the primary purpose of the effect test in section 1201 unworkable? Will content providers cre-

ate desired consumer services on the Internet after passage of this bill, and what else would be required before the content providers are comfortable exploiting this new medium?

Mr. ROBINSON. I am not certain of 1201, Mr. Chairman. What—if you could repeat your question again, I would appreciate it.

Mr. MOORHEAD. Why is the primary purpose of the effect test in section 1201 unworkable?

Mr. ROBINSON. I must tell you that I am not close enough to the—to that particular question to be able to answer it myself.

Mr. MOORHEAD. Part of that was in your written statement.

Mr. ROBINSON. Right.

Mr. MOORHEAD. That is why I asked the question.

Mr. ROBINSON. OK. Let's see, I will ask my friend to come forward.

Mr. MOORHEAD. Well, you can give us—do not worry about it. You can give us an answer in writing to that question.

Mr. ROBINSON. That would be helpful. I am not sure that I can help you very much.

Mr. MOORHEAD. Is you counsel here?

Mr. ROBINSON. Yes, he is. The circumvention of copyright protection systems, yes. This has to do with the so-called primary purpose and effect issue, and I am not sure I can really do very much better than what is already in the testimony, Mr. Chairman.

Mr. MOORHEAD. All right.

Thank you.

Mr. MOORHEAD. This is a question for all of you, anyone that wants to answer it.

How will H.R. 2441 affect individual artists, authors, and other creators, in your opinion? Ms. Simon.

Ms. SIMON. As an author, I think it is a great idea. I am all for it. It would give us the protection we need. And we have never made too much money on royalties, my husband and I, but we can always look forward to the next book.

Mr. MOORHEAD. Mr. Gashel.

Mr. GASHEL. It will make their books more immediately available to blind people, which I think is a great thing.

Mr. MOORHEAD. I do, too.

Mr. GASHEL. For them and us, too.

Mr. MOORHEAD. Mr. Robinson.

Mr. ROBINSON. Well, we think the current act protects in the digital world the creativity of our authors and artists and the people that help generate our industry. It is an unknown world that we are plunging into with the immediate transmission of material around the world, to people in all parts of the world. But we believe that H.R. 2441, as designed, does protect the interests of the creators and publishers and will therefore create a more vibrant world for the new media.

Mr. MOORHEAD. Do you think the language of the bill regarding the library is adequate? If not, why not? I know some of the educational institutions are concerned with that. I think Dr. Pings, who is on the next panel, will probably touch on this point. But do any of you want to comment on that?

Ms. SIMON. What was the question again, please, Mr. Moorhead?

Mr. MOORHEAD. Do you think the language of the bill regarding libraries is adequate? Why or Why not?

Ms. SIMON. I don't think they are adequate right now for the users of libraries. And that was the point I was making earlier, that we have to make very sure that the fair-use provisions allow the library users to get into this new revolutionary way of receiving information. We are not entirely sure that these questions are addressed in H.R. 2441.

Mr. ROBINSON. We have a little different view. We think that CONFU is doing pretty well, and even though there is—it is a voluntary group, we think that—it really represents the best way to settle these issues.

We believe that about half of the issues that have been discussed between publishers and librarians are well on their way to resolution, and that the other ones are capable of resolution by continued dialog.

Of course, we do not oppose other groups being brought together, but we feel that the voluntary approach, which is represented by CONFU, is much, much better than creating another commission to look at this issue.

STATEMENT OF JOHN KELLY, VICE PRESIDENT, CONSUMER SERVICES, RECORDING FOR THE BLIND

Mr. KELLY. Mr. Chairman, may I respond to your question on behalf of a—

Mr. MOORHEAD. Yes.

Mr. KELLY [continuing]. Very special type of library user?

John Kelly from Recording for the Blind. Thank you for your kind remarks earlier.

As you know, Recording for the Blind, a private nonprofit organization, serves as the Nation's educational library for the blind and disabled. We are the largest educational library for the blind in the world, applying the latest technology. This year alone we served 39,000 students with disabilities, with over a quarter million copies of books.

I would like to just add that for these blind users, for these library users, the proposed modifications for the exemption for the disabled will mean more books to more people, more quickly. And it is truly an equity of access to information issue for the disabled library users in the community. We strongly support proposed modifications.

Mr. MOORHEAD. The gentleman from Virginia, Mr. Boucher, is recognized.

Mr. BOUCHER. Thank you very much, Mr. Chairman.

I also would like to extend a word of welcome to our witnesses this morning.

And, Mrs. Simon, let me propound a couple of questions to you. I noted your urging that the subcommittee take its time and carefully consider the comprehensive changes to copyright law that are proposed in the legislation, and I wonder if you have prepared or if you could prepare a list of the specific changes that you would like to see made in this bill that would be appropriate from the standpoint of libraries? Do you have such a list before you?

Ms. SIMON. I do not have such a list before me. I would be pleased to provide it. I can only talk in general about the areas that I mentioned before about the browsing, the electronic reserves, about interlibrary loans and distance learning. These are four very important areas, and I would be most pleased to provide that in detail. Give our Commission a little time to do that and we will get back to you. But we do need more time.

Mr. BOUCHER. Yes. I think it would be very helpful if we had that specific list from you. And the more specific you can make the list, the better. And, in fact, if you could even propose draft statutory language, if you could perhaps have your lawyers be detailed enough in their analysis to actually draft language that you think would narrowly and specifically meet your concerns, I think that would help us the most. And I, for one, would very much like to see such a list from you.

Ms. SIMON. I will be happy to do that, Mr. Boucher.

Mr. BOUCHER. I understand also from the tenor of your statement that you would urge this subcommittee not to rush; that you would urge us to take our time and do this right and make sure that all of the implications of this measure are fully examined and understood before we have a markup of this measure here. Is that a fair statement of your view?

Ms. SIMON. You said it much better than I said it. The importance of this bill is not to be underestimated. It is truly revolutionary, but for that very reason, it should take into consideration all of the aspects that are out there.

Mr. BOUCHER. And a slow and measured approach would be the right remedy here to be sure we fully understand all of the implications of passing this measure.

Ms. SIMON. Thank you. It is indeed.

Mr. BOUCHER. Thank you.

You are a terrific witness.

Mr. Robinson, let me inquire of you a little bit about the effect of this measure on distance learning. I don't know whether you have given thought to that or whether perhaps you could suggest someone to us who might be an expert on this subject who we could talk to at a future hearing. But we have got a project in my district, and I am confident that similar projects exist in other places around the country, where we have linked school divisions together with fiberoptic lines and so we have fully interactive distance learning with a variety of sites, four, five, typically linked together, by voice video and data, so that a teacher can share his or her special skills across that very wide geographic area.

And it is a terrific technology for rural counties, many of which are financially unfortunate and simply do not have the resources to acquire teachers in some of the advanced course areas, mathematics, the sciences, foreign languages, what have you. This project, in fact, in our district was just featured on the cover of the magazine—the cover of the magazine published by the Appalachian Regional Commission as a leading project for rural America. So it is one that I am very interested in.

I am wondering if the data transmission aspects of this project could perhaps become a copyright infringement because, after all, when data is transmitted, if the transmission constitutes a dis-

tribution for copyright purposes, which is what the bill essentially would accomplish, then the image, even though it is only usually temporarily in that distant classroom, would be captured in the random access memory of the computer in that distant classroom, and that creates a copy.

Have you given any thought to the copyright implications of that and is that something we should be concerned about here?

Mr. ROBINSON. Distance learning is great for the reasons that you have outlined, Mr. Boucher. Of course, they still require materials, instruction packages, organization. These are the kinds of things that publishers are used to providing. The current copyright law, of course, as it applies to a more conventional classroom, requires that people get permission for the books that they publish and the books that they use.

The same principles apply to the data transmission issues. They become a little more difficult, perhaps, when you talk about storing material in a memory and then republishing it. I think that is where we begin to be concerned that republishing and redistribution and resale of material becomes—

Mr. BOUCHER. So it would be more like—

Mr. ROBINSON. As if somebody is in the business of reselling something.

Mr. BOUCHER. If I can interrupt your remarks, if I may, because my time is limited.

Mr. ROBINSON. Yes. Excuse me. Yes.

Mr. BOUCHER. If I understand what you are saying, you are saying that a transitory copy made in the random access memory of the computer in one of the distant classrooms might be OK because that is the new digital equivalent of the old analogue television means of sharing data for distance learning? It is—

Mr. ROBINSON. Provided the permissions were obtained in the first place.

Mr. BOUCHER. It is only when that copy is reduced to a hard copy and then actually in that way published that you would have problems? Does that fairly interpret it?

Mr. ROBINSON. It is not only the hard copy.

Mr. BOUCHER. If not, tell me why.

Mr. ROBINSON. If it is republished within the system and permission were not acquired for that, and the property of the author were not respected, and it is resold and redistributed, that is not OK—I think this brings us back to copyright management systems and forms of licensing, which we strongly support—the copyright management system will handle a situation like that.

Mr. BOUCHER. Mr. Robinson, my time is somewhat limited here.

Mr. ROBINSON. Yes.

Mr. BOUCHER. And let me just try to get you directed to this subject and let me ask a precise question. Would you object to an exception in this legislation for those instances where data is transmitted today, using a digital interactive network, wherein the random access memory of the computer in one of the receiving classrooms that is captured as a transitory copy, but then, of course, destroyed as soon as the teacher moves on to the next screen? That is the perfect analogy to the analog system today of distance-learning.

ing education, where no copy is captured in a random access memory. It is all just done by television.

But today computers are used for this to some extent, and so my sense in reading this bill is that we would, in fact, be creating a potential for copyright infringement where a digital technology is now used to do exactly what an analogue technology previously was used to accomplish, and it seems to me that we ought to have that exemption.

Your concern, as I think you have expressed it repeatedly, is that where it is actually reduced to a hard copy and republished, you would have a problem, and I agree. At that point, traditional copyright principles ought to apply.

Can you and I agree that it would be appropriate that we continue to render that subject to traditional copyright principles but say in those instances where it is only a transitory copy, captured in the random access memory, that that should be exempt from traditional copyright principles?

Mr. ROBINSON. As far as my understanding goes, as long as it is not republished either digitally or in hard copy, I think we are probably OK, but I am not a copyright expert. I am not a lawyer. We have lots of lawyers who can answer that question. I may be on slightly thin ice there, but I appreciate the intent of your question.

Mr. BOUCHER. Think about it, if you would like to supplement your——

Mr. ROBINSON. We will give you a written statement on that point.

Mr. BOUCHER. Mr. Chairman, I have consumed more than my allotted time. Let me thank you for your patience. Let me also say that while I typically in Congress don't participate in a lot of ceremonial things, we do have a ceremony over at the Library of Congress at 11 o'clock, which is the signing of the comprehensive telecommunications reform legislation. This one I can't miss. So, Mr. Chairman, I probably will be departing during the course of the next panel's testimony. I will listen for as long as I can.

Mr. MOORHEAD. I was asked to go over to there, but I have to be at the meeting here.

I recognize the other gentleman from Virginia, Mr. Goodlatte.

Mr. GOODLATTE. I, too, am going to sneak out for that very important signing. I want to welcome all members of the panel. I appreciate your contributions.

Dr. Tinsley, can you tell me a little bit more about your proposed amendment dealing with getting, I take it, preapproval of the opportunity to copy works for the distribution to the blind? Is this something that has any opposition that you are aware of from anybody in the public, industry, or in the copyright field in general?

Mr. TINSLEY. No, sir, none of which I am aware. The media will be in specialized formats: braille, recorded, and electronic media. We will not have to seek permission prior to beginning reproductions of the materials and can get a jump start on getting the materials to the kids at the same time as their sighted peers.

Mr. GOODLATTE. If those who create the works do not object, I think it is a very fine thing because one of the problems I am sure you encountered is the timeliness of certain types of material that

is time sensitive, and by the time that approval is granted, it is out of date and not as useful. I think it is very important that the community that you represent has the opportunity to get access to material as promptly as everybody else does in this information age. That is a matter of great importance.

Mr. TINSLEY. For sure. The Library of Congress does not pursue anthologies because of the number of permissions necessary to reproduce them in braille. In the classroom it has taken up to a year and a half to get all permissions for several books. Some we never get all permissions from all authors. This should really help.

Mr. GOODLATE. Mr. Robinson, could you clarify something for me, and it may be related to what Congressman Boucher was questioning you about. You said, in your summary of your statement, that congress should take care that the application of mandatory deposit provisions to works published by transmission and the possible use of electronic materials placed on deposit do not subvert proprietor rights. Could you explain what that exemption means? that is on the first page of your summary.

Mr. ROBINSON. I think we are primarily concerned about materials put in the libraries being reproduced and distributed widely without further permission or compensation. And that is of concern to our proprietors, our copyright holders, and our publishers.

Mr. GOODLATTE. What does it mean to place it on deposit?

Mr. ROBINSON. This is sort of a technical thing as far as I am concerned, and I afraid I cannot give you a very good answer to that.

Mr. GOODLATTE. Me, too.

Mr. ROBINSON. So we will have to provide you with a further description from somebody other than myself.

However, I think we covered it fairly well in the transmission statutory proposals, and I will seek to further describe it to you in another written statement.

Mr. GOODLATTE. If you could, provide the committee with the information. We do want this bill to be as comprehensive as we can make it and to make sure that copyrighted materials are properly protected but still made available as widely as possible to the end user, and if that is a proposal that is not in our bill that you think should be, if you could elaborate on that, we would certainly take a closer look at it.

Mr. ROBINSON. Thank you very much. We will do that.

Mr. GOODLATTE. Mr. Chairman, those are all the questions I have.

Mr. MOORHEAD. The ranking member of the subcommittee, Mrs. Schroeder of Colorado.

Mrs. SCHROEDER. Thank you very much, Mr. Chairman. I apologize for getting here late. We had a breakfast that did not quite end on time;

Mr. Robinson, I wanted to ask you a question about online service provider liability. My counsel tells me that you testified that technology is improving and could well enhance the ability to control the illegal use of the networks. If we provide a broad exemption from liability at this point, do you think online services would have the motivation to go forward and develop those technologies that you were talking about?

Mr. ROBINSON. Technological means to protest copyright online cannot be developed without the active cooperation of the online service providers. But they would certainly have less reason to make the effort if they were granted a broad exemption from infringement liability at such an early stage in the process of analyzing the problems and looking for solutions. The proliferation of online services is exploding dramatically, and we think that it will take more time, experience, and understanding to figure out exactly who is responsible for the maintenance of copyright with respect to the various activities and components of online services.

We ourselves operate an online service, and we have live chats with people. We also publish material that appears on online services, and we think we are working our way toward an understanding who of who is responsible for what and how, and who is taking care of making sure that intellectual property is protected.

Our first goal, of course, is the widespread use of intellectual property and communication via the online services. A close second, however, is insuring that those copyrighted materials and these creative works that have been protected by copyright in print are properly protected also in these new media.

At the moment, copyright law seems to suggest that there is a responsibility of the online provider to help protect those copyrighted works. We are engaged in excellent dialogues with many of the service providers. We ourselves offer our service through America Online. We work with them constantly on many, many subjects, and this is one of them. And we believe that through further dialog we can resolve these problems, but we think it is premature to change the law right at this moment and take away the responsibility from the provider for certain aspects of copyright protection.

Mrs. SCHROEDER. I guess I agree. I would agree that online isn't exactly like the postal service or it isn't exactly like the phone company or it isn't exactly like—you can go through all of these different things. There still has to be some accountability in each of those areas. So trying to figure that out—

Mr. ROBINSON. We support further dialog along the lines you suggest.

Mrs. SCHROEDER. Exactly.

Ms. Simon, can you elaborate the reasons why you believe the Conference on Fair Use may not provide useful results?

Ms. SIMON. I would be happy to, Mrs. Schroeder. The Conference on Fair Use established by the information infrastructure task force is an informal group of people who meet more or less on a monthly basis. Sometimes there are 25 people there, sometimes there are 65 folks. There seems to be no driving agenda for reaching a conclusion on guidelines. I know there is no mandate to come up with a report, although they talked about coming up with recommendations this spring. They certainly hope that that will be the case. The fact that there is no congressional mandate here, they don't have the responsibility to report back in a timely fashion. As I see it, I would feel better if they had had a deadline here. I would feel better if they were making some progress. So far, there is nothing really on fair use to show for it, and I am concerned that there may not be, in the long run, any definite guidelines.

Mrs. SCHROEDER. Are you implying some of the people on this conference are casual? Is that what you are saying, they don't come?

Ms. SIMON. I am saying sometimes they come, sometimes they have other things to do. I can't judge, Mrs. Schroeder. It is a loosely organized group. If you want to come, you can come. There is no structured membership to this organization.

Mrs. SCHROEDER. I am not quite sure how, even with the congressional mandate, we could mandate that people come unless we pay them by the hour, and we do not seem to have any money to do that.

Ms. SIMON. No. We do not have money. Money is not the object. I think that there is a sincere dedication in this group. I don't think they have the authority in back of them to come up with a product that we could live with and work with.

Mrs. SCHROEDER. So what I am trying to get to is whether you think they are the right people on this group. If there were a congressionally designated group, would it look a lot different than that group? Or would you mandate that they attend all the time?

I am trying to figure out exactly what a congressionally designated group would do that is different. Or would it be better to have the Congress ask that same group if they couldn't come forward with recommendations within a certain time and just keep that group going because it is up and functioning? I am trying to find out if there is something fatally flawed about the group other than it is casual and does not have a deadline.

Ms. SIMON. I think it would be ideal if the Congress would say, please, come up with an answer or a report on such and such a date, whether it is next month or 2 months hence, not a year from now. I do not think we can mandate them to attend.

I would feel better if this were a Federal advisory commission. That does imply money, I understand that. I am sorry about that, and I know we do not have the funds to do it, but that is the way we have been able to get things done, with an advisory commission that has a chairperson, that has a dedication and has had a time limit on it. I hope that CONFU will do the job.

Mrs. SCHROEDER. I totally agree it would be nice to have an Advisory Commission with money and all that. I think that is a pipe dream in this Congress. So if we work with the group that is there to try and get them more focused and get some kind of a time urgency on it, would that help, do you think?

Ms. SIMON. It certainly would be ideal to do that. I thank you if you can do that, if you would do that.

Mrs. SCHROEDER. So maybe we can work on that.

I think that is basically it, Mr. Chairman. Again, I apologize to the committee for being late.

Mr. MOORHEAD. The gentleman from California, Mr. Bono.

Mr. BONO. Thank you, Mr. Chairman. Again I want to congratulate the chairman and the other authors of this bill in an attempt to protect copyrights.

Mr Robinson, my concern is the protection of the copyright. And I have labored with this in my ownership mind for over a year, and I still haven't got a clear picture from this sense, in that, first of all, nothing is ever—to my knowledge, nothing is ever evolved this

way. You know, we had a machine that had one use, and now it has evolved into another potential use that is limitless to a point that we still don't even know where that can go yet.

So, to sit here and write laws and not know the boundaries of this new frontier is a pretty incredible attempt. And so I think that is a bigger notion than we are all thinking about or that we really can get a handle on.

So, I guess at this stage my question to you is, are you, do you feel satisfied now, being a provider of education, that once this law is passed in its present form, that you are protected enough to start putting data onto that Internet, that highway, and to supply the world without worrying about it being ripped off?

Mr. ROBINSON. That is a very good question and a profound one. Obviously, the Internet and what will come after the Internet is being compared to the creation of the printing press 500 years ago, and that is certainly a good analogy. And so we don't really know where we are going.

However, our current copyright law has worked extremely well in the eyes of the publishers. It has provided really substantial access to children, teachers, and libraries. It has provided incentives for people to create. It has got a lot of very practical and wonderful wisdom in it, and it has stood the test of time. I don't suggest that 20 years ago when we changed, the copyright law to take effect for computer software, that that is necessarily the same dimension of issue that we have today.

However, a group of intelligent and thoughtful and wise Congress people made a law that has worked extremely well and continues the protection of copyright through the computer software era. And now we believe you can do the same thing for this new era, even though we know we are on unknown byways. So we in general support this effort.

We do feel safe. We have to take an adventure with you. We are going to put out data. We think this current law, with the amendments that we suggest, will protect us.

Mr. BONO. The followup question to that is: Once, say, this bill is passed in its present form, then will you unload all of your data and just go for broke and say, OK, that this highway is available to us, call all of your writers and all of your staff and say let's go, let's put it all on this superhighway? Are you prepared to do that in its present form?

Mr. ROBINSON. I think if we are assured that the copyright law, with some of the changes that we have suggested, adequately addresses the new kind of machines that can flawlessly duplicate material, and the incredible extent to which things can be put over networks, so that you can't easily find or follow them, and we feel that the current logic of copyright law is extended into this new media, we are going to put our full force behind it. What I believe you will find now is pioneering on the Internet. Some of the crown jewels, so to speak, of the content providing companies are not being put on the Internet because of this very concern about copyright protection.

If this bill is passed with the changes that we suggest, we believe that all of the publishers will put themselves behind it and work very hard to get their crown jewels out there as well as.

Mr. BONO. My concern is this: I still haven't located the responsible person or people that will protect us. I mean the notion that if somebody wants to steal your copyrights, city by city or town by town, you could have a thousand lawsuits.

Mr. ROBINSON. Right.

Mr. BONO. Is that OK with you? I mean, if that is the way we proceed into this new horizon and that is——

Mr. ROBINSON. I think we will see a new kind of copyright licensing system evolve; I mean, there is so much material we will have to come to new ways of handling these matters.

Mr. BONO. I haven't figure out to who yet.

Mr. ROBINSON. We will have to come up with a copyright management system. There are dialogs between the publishers and various equipment manufacturers to create these systems. That is where we are going. Without that, first of all, you have chaos in terms of knowing where the rights are, and you have chaos in policing. Eventually that is the kind of system we think will solve it.

Mr. BONO. My view, in its present form you will have anarchy. It is that powerful, from my perception.

Ms. Simon, I would like to ask you the same question, basically, if I may.

Ms. SIMON. I am not prepared with the intellectual ability to answer that question, because I am not that expert on this topic. If you think it is anarchy, it must be, I will have to say, Mr. Bono. I will go along with that.

Mr. BONO. You will accept that.

Again, here is why I am concerned. We have had this thing evolve, and it is ahead of everything else in its evolution, and its ability to create new frontiers appears limitless. So I don't think we have seen nearly all of the potential of this. And so my fear is that unless as we talk about this, Mr. Robinson talks about the beauty of the transmission of education, and that is a beautiful thing, but the flip side of that is that when things are accessible without any liability attached to them or accountability attached to them, somehow things that have a way of slipping to the lowest common denominator, you turn on a television show, daytime television show, that is not highly restricted today; you see a girl who has been making love to her grandfather for 20 years and her and her grandpa pay off some other guy to kill her husband, and that is entertainment. It concerns you. And that is controlled. And that has limitless regulations.

Mr. Tinsley, I see you shaking your head. Would you like to comment?

Mr. TINSLEY. No, sir. I have nothing further.

Mr. BONO. What were you shaking your head about? OK. Anyway, I just say to all of you that beware and be aware of the potential of this thing that we have here and how gingerly we have to move forward with it.

Yes, the potential is staggering, the educational potential of it is staggering, but where it goes must, in my view, be accountable because anything, as we have all witnessed, that is not accountable usually does not produce what we expect it to produce. And so we always have to be concerned with that side of it.

I see my light is on. So thank you very much.

Mr. MOORHEAD. We welcome the gentlewoman from San Jose, CA, to the subcommittee, Ms. Lofgren.

Ms. LOFGREN. I am not a member of the subcommittee, just of the full committee. I did want to be here today because San Jose is the capital of Silicon Valley, and anything that is having to do with the Internet is of enormous importance not only to the business community but to our citizens, who I think are more on the Net than any other community in the country.

Just listening to Mr. Boucher's comments, on March 9 our entire community is going to wire up every school in Santa Clara County with donations from industry and volunteers. I plan to be there. We are going to be stringing coaxial cable. Our hope is to get every school in our county on the Net.

I am very interested in the implications of this for browsing and for schools. Like Mr. Boucher and others, I also have to go over to the bill signing.

But as I am listening here and thinking about how the Net really works, one question I have is, it is great, I remember as a kid reading the Reader's Digest. There is a column, "There Ought To Be a Law." We can pass a law, but the way the Internet works is so unbound that I am struggling with how is this actually going to be effective except for those individuals who arguably are the least part of the problem that we face in society.

I mean, schools are meticulous about respecting copyrights. I know in my own children's school they won't make xeroxes. They are very, very cautious. They always buy an extra copy of the program because they want to be fair, and I think libraries have that approach.

But millions of people around the world who can hack through a code don't have that same sense of concern. And we have penalties in here, but there is really no way that I can see to control it. And so I guess I am wondering how, as a practical matter, will this bill work in regulating that, other than to deter potentially people from entering their material online? And even that is unmanageable. As you know, once it is in print, it can be digitalized. Anybody who hasn't answered that question, I would be glad to hear it.

Mr. GASHEL. Jim Gashel here, with the National Federation of the Blind. We were very sensitive to that point you are asking about where we negotiated the specific language recommending for section 3 concerning blind and other persons with disabilities, and we very carefully defined the population who would be eligible to receive the materials in specialized formats.

Now, you know, I realize that we have somewhat of a unique situation here, but I wanted to point this out, that there is already, in our case, a very well-developed eligibility system with a definition of the eligible population that has existed in law for 30 years and a system to certify people as being eligible. So I can't comment on the rest of the bill in respect to what you are raising.

But I can say that, with respect to our area of it, I think in the case of our organization, as well as the publishers, we are very convinced that this is definitely taken care of as far as the possible infringements might go.

Ms. LOFGREN. Maybe Mr. Robinson has a comment. I should disclose that I spent a couple of hours surfing the Net in preparation for this hearing, seeing what you could find by links through pages, through Europe through Asia. It is uncontrollable. I mean, you can get everything on the Net.

Mr. ROBINSON. I think we believe that the current framework of copyright law, as revised by the new Copyright Protection Act being proposed, will eventually handle this massive issue.

Ms. LOFGREN. How?

Mr. ROBINSON. My own view is it will have to be some kind of a copyright management system that will become part of the commerce on the Net and that in order for the most highly desired material to be put up on the Net, people are going to want it to be protected. And there is going to be agreement on the part of people to comply with the law and the Copyright Protection Act. There will have to be some systems for permissioning material and for managing this flow of information, and I believe those systems can be developed.

Your caution, your concern is certainly very wise because at the moment it may seem like anarchy. We believe that the current framework of the copyright law, as revised by H.R. 2441, provides the framework for resolving these copying and distribution issues and the protection of copyright issues.

Ms. LOFGREN. Do you ever surf around on the Net?

Mr. ROBINSON. Yes.

Ms. LOFGREN. I guess I am struggling, let's say you have a copyrighted, I don't know, computer software program, say that, and it is frequently, you know, available as freeware if you surf around long enough.

Mr. ROBINSON. Right.

Ms. LOFGREN. I am just struggling, not that the outlines of the bill, I think there is—it needs further work. We want to go very slow and make sure we do the right thing. But just as a practical matter, you know, it could be, how do you still prevent somebody from New Zealand or China or wherever from doing what they want?

Mr. ROBINSON. Downloading a piece of software and copying it, which happens now. I believe that, for the best material to be created, we will find systems that will sort of adjudicate that, and through a copyright, sort of a worldwide Net copyright management system, where the machine is the answer to the machine, so to speak, we will be able to create a sort of a licensing environment that will protect copyright holders. The outline of that does exist currently in the copyright bill, as we understand it.

Ms. LOFGREN. Maybe we need to get more information from some of the technical people. I am very skeptical on that point. I am not even talking about the legal issues but just how this would actually work. You can have the best legal scheme in a book you want. If it doesn't work—

Mr. ROBINSON. As Congressman Bono said, a world with millions of lawsuits is not the way to make it work.

In terms of illegal photocopying of material, we have been able to selectively litigate and get people to stop that and to create a licensing system. This is a far more complex situation. But the cur-

rent copyright law does offer a substantial amount of protection, and the H.R. 2441 extends that protection into the digital world. Is it a failsafe thing? No. A lot of work has to be done. Yes. Are we feeling our way along? Yes.

Ms. SIMON. Ms. Lofgren, I can't respond the way Mr. Robinson can. First of all, congratulations on the schools in San Jose. That is great. I hope the libraries will be on the Internet as the next step.

Ms. LOFGREN. Most of our public libraries are already on.

Ms. SIMON. That is the wave of the future. What I am hoping for is congressional oversight on this whole matter of a repetitive nature, because 250 million U.S. citizens don't understand this and have no idea of the revolutionary impact this will have on them. We depend on the Congress of the United States to keep us up to snuff and particularly you in this committee to give us that guidance. We thank you.

Ms. LOFGREN. Thank you, Mr. Chairman.

Mr. MOORHEAD. That concludes the first panel. I want to thank you for coming and for your contribution to the committee.

Mr. MOORHEAD. Our first witness for the second panel is Dr. Cornelius Pings. Dr. Pings has been the president for the Association of American Universities since 1993, served as chairman of the Public Committee, a joint committee of the National Academies of Sciences and Engineering and Institute for Medicine from 1988 to 1992. Dr. Pings was previously professor of chemical engineering and chemical physics, vice provost and dean of graduate students at the University of California Institute of Technology, where he earned a B.S. degree in applied chemistry in 1951, Ph.D. degree in chemical engineering in 1955, and later became provost of the University of Southern California in Los Angeles.

Welcome, Dr. Pings.

Our second witness is Mr. Stephen Heaton. Mr. Heaton is general counsel and secretary of CompuServe, Inc., the online network services company based in Columbus, OH. He is cochair of the recently formed Internet and Online Committee of the American Intellectual Property Law Association.

Mr. Heaton's background includes the area of intellectual property law, such as software technology licensing. He received both his bachelor of arts degree and masters degree from the DePaul University and earned his law degree from Loyola University of Law.

Welcome, Mr. Heaton.

The third witness we have is Mr. Scott Purcell, founder and chief executive officer for HLC Internet, Inc. Mr. Purcell is director and founding member of the Los Angeles chapter of the Young Entrepreneurs Organization, a network of business owners under the age of 40, who started business, achieved in excess of 1 million dollars in sales. Currently, the company services corporate customers' Internet needs throughout the United States and boasts a solid Fortune 500 clientele, including C-SPAN, Fluor Corp., PacificCare, Mirage Resorts, and the American Red Cross. Mr. Purcell has a degree from the University of Southern California in entrepreneurship.

Our fourth witness is Mr. William J. Cook. Mr. Cook has been a trial lawyer with Willian, Brinks, Hofer, Gilson & Lione since October 1991. He has tried 89 cases in Federal courts. Before joining Willian, Brinks, Hofer, Gilson & Lione, Mr. Cook spent 16 years as an assistant U.S. attorney in Chicago, prosecuting computer and technical communications cases. He earned a law degree from Creighton University and Law School, in Omaha.

Our final witness is Ms. Catherine Simmons-Gill, president, International Trademark Association, general counsel to General Media International, Inc. Ms. Simmons-Gill has also held positions as chief trademark counsel to Sterling Winthrop, Inc., partner at the law firm Schaefer, Rosenwein & Fleming, and senior counsel at Sears, Roebuck & Co. She holds bachelors degrees from the University of Illinois, Chicago, and she has a law degree from Northwestern University.

Welcome back, Ms. Simmons-Gill.

We have written statements from all three witnesses, and I ask that you try to summarize your statements in 10 minutes or less. I ask the subcommittee hold their questions of all witnesses until after the testimony has been given. We will begin with Dr. Pings.

**STATEMENT OF DR. CORNELIUS J. PINGS, PRESIDENT,
ASSOCIATION OF AMERICAN UNIVERSITIES**

Dr. PINGS. Thank you, Mr. Chairman, members of the subcommittee. I am Cornelius Pings, currently serving as president of the Association of American Universities.

I value this opportunity to testify this morning on applications of copyright law to the digital and network world. I wish to use the occasion to comment on online liability and particularly to convey a deep concern we have about fair use interpretation in this new and exploding environment.

A disclaimer, Mr. Chairman, if I might. I am here with none of the technical expertise of my fellow panelists over the last 2 days. My perceptions are those of a bench scientist in the laboratory and in classrooms for the last 26 years at Stanford and Caltech and as provost for 12 years, the chief academic officer, at the University of Southern California.

Mr. Chairman, we have submitted written testimony, which I will not read at any length.

Let me tell you forthrightly my primary concern with the legislation pending before you. It does not provide a proper balance between the proprietary rights of information producers and the fair use exemptions essential to the effective dissemination of information in a democratic society and in an efficient economy.

As both producers and users of information, universities have a particular interest in extending the balanced treatment of print material provided under the current copyright law into the networked environment. However, that translation of copyright provisions from the print medium to the digital environment is difficult.

The administration's Information Infrastructure Task Force has conducted an extensive examination of these issues culminating in its white paper to which our community contributed.

That white paper is a good beginning in dealing with a set of extraordinarily complicated issues. However, we do not believe it can be regarded as a finished product. We believe that white paper is seriously imbalanced in its treatment of critical intellectual property issues.

Moreover, on one of the most important aspects of intellectual property management for colleges, universities and their libraries, the fair use provisions of copyright law, the Information Infrastructure Task Force was unable to reach a conclusion and has convened a diverse group of publishers, librarians and educators to try to agree on the translation of the fair use provisions into this new networked environment. That group has met for over a year and still has not reached agreement on the critical fair use provisions.

H.R. 2441 would modify the current copyright code to treat transmission of a copyrighted work in the digital environment as falling under the exclusive rights of the copyright holder. In such an environment, even the most fundamental scholarly activities would be placed in jeopardy.

In the print medium, a scholar writing a book, for example, might include hundreds of footnotes, referencing the prior work of fellow scholars. Indeed, it is the essence of scholarship to connect new knowledge to that which has preceded it. None of these citations is treated as copyright controlled. The scholarly obligation to avoid plagiarism and to acknowledge properly the work of other is fundamental to the collection advancement of knowledge, but copyright plays no role in those transactions. Translate, if you would, the same set of activities into the digital environment.

In our reading of H.R. 2441, it is that all citations in these hundreds of footnotes would require permission of, and possibly payment to, the copyright holder. You can imagine the immensely chilling effect on the conduct of research and scholarship as we have known it.

The Federal Government currently invests \$13 billion annually in academic research. That research is pushing the frontiers of knowledge across all disciplines. Its breadth and quality have given this Nation a leadership role in science and technology that has sharpened our economic competitiveness, strengthened our national defense, and increased the quality of life of our citizens.

The benefits of that Federal investment will increase or decrease as a consequence of the policies governing the application of the digital environment to the conduct of research.

The history of our copyright laws might give us some cautions not to act too quickly. As an example, we are reminded that at the start of the century, people believed that a manufacturer of piano rolls would quickly monopolize the music recording industry. That belief, even though rather quickly proven wrong, shaped the laws governing sound recordings for many subsequent decades.

Mr. Chairman, we are working with other groups to devise legislative provisions that would foster the balanced treatment of intellectual property in the electronic environment. I would like to submit for the record, along with my testimony, the statement of principles governing intellectual property prepared by the Association of Research Libraries. This statement admirably defines the goals for a balanced treatment of intellectual property.

I further commend to the subcommittee the statement prepared by the library community on H.R. 2441, in particular, their suggestion of amending section 107, fair use provisions of the current copyright law, to include transmissions. Transmissions of copyrighted materials may well provide the needed balance to the treatment of transmission in section 2 of H.R. 2441.

Mr. Chairman, as we build this new information superhighway, we must preserve the varying interests of its legitimate travelers. Not every road should be a toll road. It is in the long term interests of all parties to maintain the balance established under the current copyright law.

Therefore, in conclusion, my single request to the members of the subcommittee on behalf of the higher education community is that you pause in the legislative process to allow the debate about the management of intellectual property in the network environment to be resolved before you act.

Because of our concerns about the recommendations of the white paper, we have serious reservations about H.R. 2441, which is based on the recommendations of that paper.

Mr. Chairman, I thank you for this opportunity to talk with you this morning.

[The prepared statement of Mr. Pings follows:]

PREPARED STATEMENT OF DR. CORNELIUS J. PINGS, PRESIDENT, ASSOCIATION OF
AMERICAN UNIVERSITIES

Mr. Chairman and members of the Subcommittee, I appreciate having this opportunity to testify on behalf of the Association of American Universities, the American Council on Education, and the National Association of State Universities and Land-Grant Colleges on the application of copyright law to the digital, networked environment of the national information infrastructure (NII) and, specifically, on the nature and extent of on-line liability for copyright infringement in the NII. Collectively, our organizations represent nearly 2,000 colleges and universities, all of which have a keen interest in the enormous potential of the digital, networked environment to enhance the quality and expand the reach of our education and research programs.

I have watched and participated in the development of computerized information networks in my own career as a professor of chemical engineering and university administrator. I spent most of my research and teaching career at the California Institute of Technology, then moved to University of Southern California, where I spent 12 years as provost before assuming the presidency of the Association of American Universities in 1993. Caltech, USC, and a number of other great research universities, with the support and cooperation of the Department of Defense and the National Science Foundation, built the initial networks on which the NII was founded.

These early computer networks were used in the conduct of research and in the analysis and dissemination of its results. They enabled research scientists to tackle research problems previously unassailable and to collaborate across distances previously untraversable. As we are all witnessing today, from these research-oriented beginnings, digital networks are evolving with astounding speed to become a global information infrastructure that holds the potential to enrich virtually all phases of our lives.

I will not attempt to provide technical or legal arguments for the evolution and management of the NII. Instead, I will discuss how universities use information networks now, what the possibilities are for the future, and what I believe to be the necessary conditions for realizing the potential of digital networks to advance the educational and research missions of our institutions.

The creation, interpretation, preservation, and dissemination of information are the core activities of the research university. Faculty scientists and scholars produce new information and new interpretations of existing information, which they pass on to their colleagues and to the undergraduate and graduate students they teach. Some of these students will themselves become producers of new knowledge; all benefit from the acquisition of information and the critical skills that permit the translation of information into knowledge—the ability to sort fact from fiction, sound reasoning from spurious assertion—that is the essence of a liberal education.

Information networks are expanding the breadth and depth of all of these research and educational activities. Faculty scientists and scholars are able to communicate and collaborate in ways that are changing the conduct of research. Faculty can draw colleagues into the classroom in real time irrespective of where they are physically located. Similarly, a “classroom” of students may be made up of students from virtually any country or continent. Faculty and students are developing new ways of communicating—in both directions—that are blurring the boundaries of teacher and student and enriching teaching and learning immeasurably in the process. Students are developing new ways of collaborating with each other, both on campus and across campuses. Both students and faculty are gaining access to information heretofore unavailable to them. All of this will allow faculty to discover more and students to learn more, and our society will be the richer for it.

The outer limits of these new forms of research and educational activities can only be guessed at. How close we come to realizing the full potential of the digital, networked environment will depend to a considerable degree on the legal and financial properties acquired by the NII as it develops.

The best approach to developing the full potential of the NII for all members of our society is to carry forward the artful balance of information interests embodied in current copyright law. Copyright law has been carefully crafted over time to balance the rights of information producers and information users. The provision of exclusive, proprietary rights to information producers provides the financial incentive to create new intellectual property. The copyright law also provides critical limitations on these exclusive rights in order to make information readily available to the broadest

possible audience. These library, educational, and “fair use” exemptions are essential to the dissemination of information to all sectors of society. The broad accessibility of information is fundamental to the operation of a democratic society.

As both producers and users of information, universities have a particular interest in extending the balanced treatment of print material provided under current copyright law into the networked environment. However, the translation of copyright provisions from the print medium to the digital environment is proving to be exceedingly difficult. The Administration’s Information Infrastructure Task Force has conducted an extensive examination of these issues, culminating in its “White Paper,” *Intellectual Property and the National Information Infrastructure*. The Administration’s White Paper is a good beginning in dealing with a set of extraordinarily complicated issues. However, we do not believe that it can be regarded as a finished product. We believe that the White Paper is seriously imbalanced in its treatment of critical intellectual property issues. Moreover, on one of the most important aspects of intellectual property management for colleges, universities, and their libraries—the fair use provisions of copyright law—the Information Infrastructure Task Force was unable to reach a conclusion and has convened a diverse group of publishers, librarians, and educators to try to agree on the translation of the fair use provisions of copyright law into the networked environment. The group has met for over a year and has still not reached agreement on these critical fair use provisions.

Our principal concern with the White Paper is that, in translating the principles and provisions of copyright law into the networked environment, it narrows the multifaceted purposes of information in a democratic society into a vision of information as an almost exclusively commercial commodity, imposing a single economic model on an information system that now operates under diverse economic models. In the print medium, trade and popular books are, in fact, largely marketed as commercial commodities under an economic model that assumes readers will buy them. However, much scholarly literature is managed under an economic model that assumes that libraries will buy the intellectual property and provide scholars with access to it. We are concerned that the recommendations of the White Paper, if implemented, would impose the first economic model—a

commercial model—onto virtually all intellectual property in the networked environment, posing a serious threat to the continued functioning of scholarly communication in that environment.

Therefore, my single request to the members of this Subcommittee on behalf of the higher education community is that you pause in the legislative process to allow the debate about the management of intellectual property in the networked environment to be resolved before you act. Because of our concerns about the recommendations of the White Paper, we have serious reservations about H.R. 2441, which is based on those recommendations.

H.R. 2441 would modify the current copyright code to treat any transmission of a copyrighted work in the digital environment as falling under the exclusive rights of the copyright holder. Moreover, the definition of “transmit” would preclude the electronic network equivalent of browsing. To prevent students from browsing through on-line digital libraries would be an enormous loss of the educational potential of the networked environment. (It is important to note that preventing potential purchasers from browsing through commercially available digital texts would also likely constrain the commercial market—precisely the opposite result of the one sought by the White Paper.)

Almost nothing can be done in computer networks—certainly none of the cooperative research and educational activities I described earlier—that doesn’t involve electronic transmission. The provisions of H.R. 2441, Sec. 2, “Transmission of Copies,” pose a serious threat to the full range of exemptions to exclusive rights, thereby eliminating or severely constraining the ability of libraries to lend works to legitimate library patrons or to other libraries, of students to gain access to course-related information placed on library reserve, of professors to include excerpted material from copyrighted works in their course materials, and much more.

In the absence of the unambiguous translation of fair use and related limitations to exclusive rights into the digital environment, the interaction of several of the provisions of H.R. 2441 would likely shift the balance of rights and limitations substantially toward the proprietary rights of producers and away from the limitations on those rights that serve the legitimate interests of users of

information. Consider the plight of a university trying to exploit the rich potential of the NII in a legal environment in which all digital transmissions fall under the control of copyright holders, all digital information is governed by copyright protection systems and tagged with copyright management information, and severe financial and criminal penalties exist for any case of copyright infringement.

In such an environment, even the most fundamental scholarly activities would be placed in jeopardy. In the print medium, a scholar writing a book may include hundreds of footnotes referencing the prior work of fellow scholars; indeed, it is the essence of scholarship to connect new knowledge to that which has preceded it. None of those citations is treated as a copyright-controlled act. The scholarly obligation to avoid plagiarism and to acknowledge properly the work of others is fundamental to the collective advance of knowledge, but copyright plays no role in these transactions.

Translate that same set of activities into the digital environment, and our reading of H.R. 2441 is that all citations in those hundreds of footnotes would require permission of, and possibly payment to, the copyright holder. That would have an immensely chilling effect on the conduct of research and scholarship as we have known it.

The federal government currently invests some \$13 billion in academic research. That research is pushing the frontiers of knowledge across all disciplines. Its breadth and quality have given this nation a leadership role in science and technology that has sharpened our economic competitiveness, strengthened our national defense, and increased the quality of life of our citizens. The benefits of that federal investment will increase or decrease as a consequence of the policies governing the application of the digital environment to the conduct of research.

The University of Michigan has launched an exciting new project called the "Upper Atmospheric Research Collaboratory." This project has developed an internationally networked collaboration laboratory ("collaboratory") in which computing and communications technology are combined to allow physicists, computer scientists, and behavioral scientists distributed throughout the world to work together, using a remote instrument site in Greenland, on a set of interdisciplinary

research problems. This worldwide collaboration is the very essence of the NII applied to the conduct of research. It could be severely crippled by the provisions of H.R. 2441.

Certainly, much, though not all, digital transmission should fall under the control of copyright holders. Certainly, we should exploit the technological potential of the digital environment to support effective copyright management systems. And certainly, we should support appropriate civil rights and criminal penalties for the willful violation of such provisions. But we need simultaneously to translate into the networked environment the limitations on the exclusive rights of copyright holders. Neither the White Paper nor H.R. 2441 performs that essential translation.

With respect to on-line liability, H.R. 2441 has two problems, one of commission, one of omission. First, as discussed above, the treatment of all digital transmissions of copyrighted work as falling under the exclusive rights of copyright holders would make a wide range of uses of information instances of copyright infringement. Therefore, although the civil and criminal penalties specified in H.R. 2441 may be reasonable for reasonable cases of copyright infringement, the legislation commits the error of defining far too broadly what constitutes copyright infringement. The problem of omission is addressing third-party liability. With the expanded capacities of the networked environment, colleges, universities, and their libraries must be protected as service providers from inappropriate use of networks which they cannot possibly control.

Thus, to enact the provisions of H.R. 2441 now—when as a nation we have not yet reached consensus on how to incorporate the legitimate exemptions to exclusive rights into the digital, networked environment—would threaten to expand intellectual property management in the digital environment into a unidimensional system based on intellectual property as a purely proprietary commodity, to the extinction of the needs and interests of information users.

This is a time of enormous change in information technology. The capacities of computers are growing seemingly exponentially, even as their costs-per-function drop dramatically. The landmark telecommunications legislation passed by Congress will usher in some of the most sweeping changes in telecommunications law and practice in decades. There is good reason to believe that this

legislation will create an effectively competitive telecommunications marketplace that will benefit universities in a number of ways.¹ However, we have serious misgivings about some aspects of this legislation and their prospect for constraining the legitimate, free exchange of information.

Even as this legislation is passed, courts are continuing to establish a record of case law in the application of the copyright code to the digital, networked environment.

In this climate of tumultuous change, we should proceed with caution before enacting legislation, however well intentioned, that might stifle technological advances or produce unintended constraints on legitimate information rights. We should be cautious about enacting provisions that may have unintended consequences on a complex, rapidly changing communications system. And we should consider whether provisions yet to be proposed might be needed to further the full range of society's interests in the NII.

The history of our copyright laws cautions us not to act too quickly. At the start of the century, people believed that a manufacturer of piano rolls would quickly monopolize the music recording industry. This belief, even though quickly proven wrong, shaped the laws governing sound recordings for many decades. More recently, movie producers argued that the copyright laws should prevent Sony and others from selling video cassette recorders because they allowed consumers to record copyrighted programs. Congress, however, did not rush to pass legislation, and the Supreme Court's interpretation of the fair use doctrine in the *Betamax* case balanced the competing interest. As a result, VCRs now provide producers with one of their largest sources of revenue and consumers with access to movies they did not have before.

We are working with other groups to devise legislative provisions that would foster the balanced treatment of intellectual property in the electronic environment. I would like to submit for the record, along with my testimony, the statement of principles governing intellectual property prepared by the Association of Research Libraries. This statement admirably defines the goals for a balanced treatment of intellectual property that we need to preserve in the networked environment. I further commend to the Subcommittee the statement prepared by the library community on

H.R. 2441. In particular, their suggestion of amending Sec. 107 fair use provisions to include transmissions of copyrighted materials may well provide the needed balance to the treatment of transmission in Sec. 2 of H.R. 2441.

As we build this bold new information superhighway, we must preserve the varying interests of its legitimate travelers. Not every road should be a toll road. It is in the long-term interest of all parties to maintain the balance established under the current copyright law as we develop the terms for the management of intellectual property in the networked environment.

I believe it was Ezra Pound who wrote a parable about a little girl who so loved the sunlight coursing through her bedroom window that she shut the blinds to keep it all in for herself. We must avoid that fatal error. As we construct this new information medium, we need to create the conditions that will increase both the sunlight and the windows through which it will shine.



INTELLECTUAL PROPERTY: AN ASSOCIATION OF RESEARCH LIBRARIES STATEMENT OF PRINCIPLES

"The primary objective of copyright is not to reward the labour of authors, but [t]o promote the Progress of Science and useful Arts. To this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work. This result is neither unfair nor unfortunate. It is the means by which copyright advances the progress of science and art."

—Justice Sandra Day O'Connor

AFFIRMING THE RIGHTS AND RESPONSIBILITIES OF THE RESEARCH LIBRARY COMMUNITY IN THE AREA OF COPYRIGHT

The genius of United States copyright law is that it balances the intellectual property rights of authors, publishers, and copyright owners with society's need for the free exchange of ideas. Taken together, fair use and other public rights to utilize copyrighted works, as established in the Copyright Act of 1976, constitute indispensable legal doctrines for promoting the dissemination of knowledge, while ensuring authors, publishers, and copyright owners protection of their creative works and economic investments. The preservation and continuation of these balanced rights in an electronic environment are essential to the free flow of information and to the development of an information infrastructure that serves the public interest.

The U.S. and Canada have adopted very different approaches to intellectual property and copyright issues. For example, the Canadian Copyright Act does not contain the special considerations for library and educational use found in the U.S. Copyright Act of 1976, nor does it place federal or provincial government works in the public domain. Because of these differences, this statement addresses these issues from the U.S. perspective.

Each year, millions of researchers, students, and members of the public benefit from access to library collections — access that is supported by fair use, the right of libraries to reproduce materials under certain circumstances, and other related provisions of the copyright law. These provisions are limitations on the rights of copyright owners. The loss of these provisions in the emerging information infrastructure would greatly harm scholarship, teaching, and the operations of a free society. Fair use, the library, and other relevant provisions must be preserved so that copyright ownership does not become an absolute monopoly over the distribution of and access to copyrighted information. In an electronic environment, this could mean that information resources are accessible only to those who are able to pay. The public information systems that libraries have developed would be replaced by commercial information vendors. In the age of information, a diminished scope of public rights would lead to an increasingly polarized society of information haves and have-nots.

Librarians and educators have every reason to encourage full and good-faith copyright compliance. Technological advancement has made copyright infringement easier to accomplish, but no less illegal. Authors, publishers, copyright owners, and librarians are integral parts of the system of scholarly communication, and publishers, authors, and copyright owners are the natural partners of education and research. The continuation of fair use, the library and other relevant provisions of the Copyright Act of 1976 applied in an electronic environment offer the prospect of better library services, better teaching, and better research, without impairing the market for copyrighted materials.

Although the emerging information infrastructure is raising awareness of technological changes that pose challenges to copyright systems, the potential impact of technology was anticipated by the passage of the Copyright Act of 1976. Congress expressly intended that the revised copyright law would apply to all types of media. With few exceptions, the protections and provisions of the copyright statute are as relevant and applicable to an electronic environment as they are to a print and broadcast environment.

The research library community believes that the development of an information infrastructure does not require a major revision of copyright law at this time. In general, the stakeholders affected by intellectual property law continue to be well served by the existing copyright statute. Just as was intended, the law's flexibility with regard to dissemination media fosters change and experimentation in educational and research communication. Some specific legislative changes may be needed to ensure that libraries are able to utilize the latest technology to provide continued and effective access to information and to preserve knowledge.

The Association of Research Libraries affirms the following intellectual property principles as they apply to librarians, teachers, researchers, and other information mediators and consumers. We join our national leaders in the determination to develop a policy framework for the emerging information infrastructure that strengthens the Constitutional purpose of copyright law to advance science and the useful arts.

STATEMENT OF PRINCIPLES

1: Copyright exists for the public good.

The United States copyright law is founded on a Constitutional provision intended to "promote the progress of Science and Useful Arts." The fundamental purpose of copyright is to serve the public interest by encouraging the advancement of knowledge through a system of exclusive but limited rights for authors and copyright owners. Fair use and other public rights to utilize copyrighted works, specifically and intentionally included in the 1976 revision of the law, provide the essential balance between the rights of authors, publishers and copyright owners, and society's interest in the free exchange of ideas.

2: Fair use, the library, and other relevant provisions of the Copyright Act of 1976 must be preserved in the development of the emerging information infrastructure.

Fair use and other relevant provisions are the essential means by which teachers teach, students learn, and researchers advance knowledge. The Copyright Act of 1976 defines intellectual property principles in a way that is independent of the form of publication or distribution. These provisions apply to all formats and are essential to modern library and information services.

3: As trustees of the rapidly growing record of human knowledge, libraries and archives must have full use of technology in order to preserve our heritage of scholarship and research.

Digital works of enduring value need to be preserved just as printed works have long been preserved by research libraries. Archival responsibilities have traditionally been undertaken by libraries because publishers and database producers have generally preserved particular knowledge only as long as it has economic value in the marketplace. As with other formats, the preservation of electronic information will be the responsibility of libraries and they will continue to perform this important societal role.

The policy framework of the emerging information infrastructure must provide for the archiving of electronic materials by research libraries to maintain permanent collections and environments for public access. Accomplishing this goal will require strengthening the library provisions of the copyright law to allow preservation activities that use electronic or other appropriate technologies as they emerge.

4: Licensing agreements should not be allowed to abrogate the fair use and library provisions authorized in the copyright statute.

Licenses may define the rights and privileges of the contracting parties differently than those defined by the Copyright Act of 1976. But licenses and contracts should not negate fair use and the public right to utilize copyrighted works. The research library community recognizes that there will be a variety of payment methods for the purchase of copyrighted materials in electronic formats, just as there are differing contractual agreements for acquiring printed information. The research library community is committed to working with publishers and database producers to develop model agreements that deploy licenses that do not contract around fair use or other copyright provisions.

5: Librarians and educators have an obligation to educate information users about their rights and responsibilities under intellectual property law.

Institutions of learning must continue to employ policies and procedures that encourage copyright compliance. For example, the Copyright Act of 1976 required the posting of copyright notices on photocopy equipment. This practice should be updated to other technologies that permit the duplication of copyrighted works.

6: Copyright should not be applied to U.S. government information.

The Copyright Act of 1976 prohibits copyright of U.S. government works. Only under selected cir-

cumstances has Congress granted limited exceptions to this policy. The Copyright Act of 1976 is one of several laws that support a fundamental principle of democratic government — that the open exchange of public information is essential to the functioning of a free and open society. U.S. government information should remain in the public domain, free of copyright or copyright-like restrictions.

7: The information infrastructure must permit authors to be compensated for the success of their creative works, and copyright owners must have an opportunity for a fair return on their investment.

The research library community affirms that the distribution of copyrighted information that exceeds fair use and the enumerated limitations of the law require the permission of and/or compensation to authors, publishers, and copyright owners. The continuation of library provisions and fair use in an electronic environment has far greater potential to promote the sale of copyrighted materials than to substitute for purchase. There is every reason to believe that the increasing demand for and use of copyrighted works fostered by new information technologies will result in the equivalent or even greater compensation for authors, publishers, and copyright owners. The information infrastructure, however, must be based on an underlying ethos of abundance rather than scarcity. With such an approach, authors, copyright owners, and publishers will have a full range of new opportunities in an electronic information environment and libraries will be able to perform their roles as partners in promoting science and the useful arts.

ADOPTED BY THE ARL MEMBERSHIP, MAY 1994

The Association of Research Libraries is a not-for-profit organization representing 119 research libraries in the United States and Canada. Its mission is to identify and influence forces affecting the future of research libraries in the process of scholarly communication. ARL programs and services promote equitable access to and effective use of recorded knowledge in support of teaching, research, scholarship, and community service. ARL members include 108 large university libraries, the national libraries of the United States and Canada, and a number of public and special libraries with substantial research

STATEMENT OF PRINCIPLES

PRINCIPLE 1: COPYRIGHT EXISTS FOR THE PUBLIC GOOD.

PRINCIPLE 2: FAIR USE, THE LIBRARY, AND OTHER RELEVANT PROVISIONS OF THE COPYRIGHT ACT OF 1976 MUST BE PRESERVED IN THE DEVELOPMENT OF THE EMERGING INFORMATION INFRASTRUCTURE.

PRINCIPLE 3: AS TRUSTEES OF THE RAPIDLY GROWING RECORD OF HUMAN KNOWLEDGE, LIBRARIES AND ARCHIVES MUST HAVE FULL USE OF TECHNOLOGY IN ORDER TO PRESERVE OUR HERITAGE OF SCHOLARSHIP AND RESEARCH.

PRINCIPLE 4: LICENSING AGREEMENTS SHOULD NOT BE ALLOWED TO ABROGATE THE FAIR USE AND LIBRARY PROVISIONS AUTHORIZED IN THE COPYRIGHT STATUTE.

PRINCIPLE 5: LIBRARIANS AND EDUCATORS HAVE AN OBLIGATION TO EDUCATE INFORMATION USERS ABOUT THEIR RIGHTS AND RESPONSIBILITIES UNDER INTELLECTUAL PROPERTY LAW.

PRINCIPLE 6: COPYRIGHT SHOULD NOT BE APPLIED TO U.S. GOVERNMENT INFORMATION.

PRINCIPLE 7: THE INFORMATION INFRASTRUCTURE MUST PERMIT AUTHORS TO BE COMPENSATED FOR THE SUCCESS OF THEIR CREATIVE WORKS, AND COPYRIGHT OWNERS MUST HAVE AN OPPORTUNITY FOR A FAIR RETURN ON THEIR INVESTMENT.



ASSOCIATION OF RESEARCH LIBRARIES
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Mr. MOORHEAD. Dr. Pings, one of the things I would comment on, we have observed, unless there is some kind of pressure or urgency for people to come to agreement, many of them would rather never have agreement; in fact, just keep it forever. And I know that we have a number of members of this subcommittee that are very concerned about the same subject that you are and they would like to have an agreement in this area. We are not giving up our struggle to find a way to handle this.

But we do not want—there are hundreds of billions of dollars that are involved in our trade and in opening up this Internet, and we would ask you to urge this group to kind of lay aside some of their personal desires a little bit and try to come to some kind of an agreement that would be worthwhile. I know how hard it is to get agreements out of groups, but they can be helpful to us. But they can't just sit there and argue for 10 years and nothing happens.

And that is our problem, and as one of my constituents, or at least a former constituent, I am very much interested in what you want. But I can tell you that we would like to get something out this year, and this has a long ways to go when it goes out to subcommittee; it still has the full committee and the floor and it has the Senate, each step of the way, and we know that most of these issues have to be resolved to get a bill through.

Mr. Boucher here, from Virginia, is very, very much interested in your subject, and he has to go to this meeting that we are having.

But do you have a question or two you would like to ask?

Mr. BOUCHER. I would just like to welcome Dr. Pings, with whom I had a close association when I served as chairman of the Science Subcommittee a number of years ago. He was with the American Association of Universities. Your views are always welcome. While I didn't get to hear your testimony, I will certainly read your testimony.

Dr. PINGS. Mr. Boucher, it is a delight to see you again. There is life after indirect costs and merit review.

Mr. Chairman, we are fully sympathetic with your views. We wish a deliberate outcome, and a prompt one, also. I do not think this is a matter of a 10-year protraction, but there are some serious loose ends. The very economic factors you referred to are of very grave concern to us, but we are concerned that the failure to treat the fair use treatment, in fact, could well end up inhibiting the very economic development that is imagined here by proper control of the copyrighting of intellectual property.

Mind you, we have no objection to, in fact we are strong advocates of, copyright of intellectual wares. After all, many of those will emanate from our universities and from our students and our faculty, and it is a balance we seek. And all we are asking is the way be found to at least find a way to translate into this legislation the long-fought-out provisions that prevail now for the print media, that do provide some protection for fair use. Otherwise, I think we will be creating what will turn out to be a stultified atmosphere here.

Mr. MOORHEAD. See if you can get some worthwhile suggestions on the subject from this group to me or to Rick Boucher or to Pat

or some other member of the committee as urgently as soon as possible, if you can.

Dr. PINGS. That is a welcome invitation, and we will respond to it.

**STATEMENT OF STEPHEN M. HEATON, GENERAL COUNSEL
AND SECRETARY, COMPUSERVE, INC.**

Mr. HEATON. Good morning, Chairman Moorhead, Mr. Boucher, Mrs. Schroeder. I am Steve Heaton, secretary of CompuServe. I am truly grateful for the opportunity to address the committee today. In fact, my four grade-school-age daughters are quite pleased that their dad has a chance to participate in the political process in this way, and my hope is to add to that process today and try to deal with some of the difficult questions that have already come up.

My written testimony addresses the broad question of whether the present scope of H.R. 2441 ought to be expanded to address issues and uncertainty surrounding copyright liability and related duties of online service companies, whether they are providing proprietary online services, providing network access services to the World Wide Web and other Internet services, or providing both.

Although this testimony may not offer answers on a topic as complex as this that are immediately satisfactory to everybody, I hope that it will provide at least a perspective that has not been central, I believe, to the development of H.R. 2441 to date but that will prove helpful in analyzing whether that bill is sufficient in its present state.

The gist of my comments will be to suggest that further clarifications are both necessary and appropriate, but not only to protect copyright works but also to protect the very infrastructure that will make them available as well as the interests of those for whom they have been created, the people at large. It is also hoped these comments will provide useful industry insights into the issue of copyright liability fairness.

Because my written statement is fairly detailed, I will be brief here. I would like to make just a few main points.

I believe that H.R. 2441 will change copyright liability, I believe, from an online service and Internet accessors' perspective. A legislative clarification is necessary at this time due to a great deal of uncertainty that exists currently. Practical means of addressing copyright infringement are necessary. I think that is important for online service companies to recognize.

I also believe that schemes of imposing liability must be fair for copyright owners, for service providers, and for the users, our customers, our mutual customers, who I believe are the real drivers of the national information infrastructure. This will occur only if the role of each are appreciated and the roles and agendas of each group are kept in balance.

I believe the main problem, from our perspective, is a pressure to shift the enforcement responsibility and burden away from copyright owners, perhaps not intentionally but effectively, and toward service providers by deeming them violators of the copyright laws essentially, simply by virtue of their presence in the digital infrastructure. I call this bystander liability. I believe this takes the need for practical copyright protections too far. This pressure may

be due in significant part to misapprehension of the online service providers' role.

Providers of online services, in performing their various system functions, simply cannot review and monitor all of the data transportation netted over and stored in their networks, or bulletin board. Indeed, trillions of bits of data representing millions of individual messages travel across the country and around the world each day. Aside from when they are themselves the information provider, providers of online services do not know what is being uploaded onto, transmitted through, stored upon, and downloaded from their systems. These materials are uploaded real time by subscribers, and providers cannot monitor or review all of this information to determine whether the messages infringe copyright, defame an individual, or otherwise might violate current laws.

Conversely, if they were required to do so, the burden would result in no less than bringing their businesses to a halt, almost immediately cutting off the flow of information and communications to millions of people. Providers of online services are, in many respects, analogous to distribution companies such as truckers or airlines or to the post office or to communications companies. They essentially provide the means by which individuals can exchange information or communicate. They are not themselves responsible for originating, managing, or reviewing content. Like book stores and libraries or communication and other distribution companies, because providers do not know the contents of the messages they are transmitting or distributing on a real-time basis, they are unable to use content as a basis for limiting users' access to their systems unless they have actual knowledge that the material is indeed infringing or otherwise unlawful.

Online service providers can and do cooperate with law enforcement personnel when illegal behavior such as a threat of violence is brought to their attention by the authorities. When, however, the information on the system is alleged to infringe on a copyright, it may be much more difficult for providers to know if action is needed except in the most obvious of cases or where sufficient information described in the material is uploaded with it. Providers would not be able to determine whether information that has been uploaded and stored in their systems infringe the work of another, is original with the uploader, is in the public domain, or whether the subscriber's upload otherwise falls within the defense, such as fair use.

I believe that this pressure that I mentioned before about this shift of the enforcement responsibility and burdens represents a threat of copyright liability and defense, defense costs. This is a very real threat.

The prospects of a significant copyright litigation lawsuit, we have been in the music litigation, which was widely reported. Simply the threat of it, of having to defend it, is a significant burden and is going to detract from the real business at hand, which is the national information infrastructure in which service providers play a crucial role.

Also, additional dangers from this pressure are the simple problem of copyright analysis. Copyright analysis is not a simple process. It never has been. And it will be a challenge, always, to make

the simple copyright analysis which involves questions of fair use, ownership, substantial similarity, validity of the underlying copyright, merger doctrine, distinguishing facts and ideas from expression, public domain issues, whether or not there is a license, whether or not there is a written license or an implied license, defenses such as Laches, when people do not respond timely, copyright misuse, indeed, and various other issues. This is the stuff that is giving courts and experts fits for years.

It is simply unreasonable to tell an online service company to make these decisions in the ordinary course of its business day and to accept the repercussions and liability itself if it decides incorrectly or unwisely.

I would add that the costs and the burden of this overall enforcement effort would be significant. I would further add that copyright owners already are equipped to enforce copyrights quite well. Indeed, Congress has already settled the matter of who is truly responsible for copyright investigation and enforcement, copyright owners, by the very powerful remedies afforded in the Copyright Act. Congress has empowered copyright owners to themselves defend their property. These tools include statutory damages, recovery of attorneys fees and defense costs, recovery of the copyright owners' lost property, recovery of profits realized from the infringement itself, injunctive empowerment remedy, strong ownership and validity presumptions that will make proof of these otherwise very difficult elements very easy and very cheap for obtaining copyright registration.

There is also a severe distraction threat from the enforcement efforts that a copyright—excuse me, that an online service provider would have to undertake if this responsibility was shifted to it.

There is also a concern engendering distrust by customers when the service provider is the one who is constantly providing the bad news. Copyright responsibility will not take root at the popular level if copyright owners continue to turn not to the true infringers, but to the more visible online service providers. Using liability against an online service is likely to cause a regime of deletion by default.

I believe we should move forward with some basic principles in mind. I think the above two principles, I would begin with a practical means of addressing copyright infringement is indeed necessary. Second, the means of imposing liability must be fair for copyright owners, for service providers, and for the users of this information.

I would add that any solution to this problem cannot entail a shift in requirement of complete copyright analysis to be borne by online service companies. The intensive factual investigation and legal copyright analysis should not be required of online companies regarding infringement of others. Online companies are not particularly well equipped to do this analysis. In fact, the copyright owner is far better equipped, and it is a completely unacceptable shifting of the burden of ownership of private property away from the proprietor, he who retains all the benefits of ownership.

As the next opinion, I would suggest meaningful participation in the wrongful conduct must be a condition for indirect liability in each case. Except in the case of employer-agent vicarious liability,

there should be no liability for the infringing conduct of others, indirect liability without meaningful participation in the wrongful conduct. This should mean actual knowledge of the infringement, and, second, with such knowledge, a material and volitional contribution to the act of infringement.

I will quickly add two other principles: there not be direct liability without a volitional contribution to be direct liability. There must be a respect for the customer relationship. Online service companies should not be pressured by imposition of third-party liability and enforcement schemes to take actions against their customers where there is uncertainty as to the validity of those actions. This will teach our customers to distrust us and may well ruin the NII in the process. This is especially compelling where there is recourse available by the copyright owner itself.

I will stop my comments there because I realize I have gone overtime. The only thing I would say, and I am sure it will come up in the questions, is that I believe there are some constructive things that can be done to address the very, very real need for practical solutions to the very real threat by the digital environment to copies made too easily.

[The prepared statement of Mr. Heaton follows:]

PREPARED STATEMENT OF STEPHEN M. HEATON, GENERAL COUNSEL AND SECRETARY,
COMPU SERVE, INC.

I. Acknowledgment

These Comments are submitted by Stephen M. Heaton, General Counsel and Secretary for CompuServe Incorporated. I am grateful to the Subcommittee on Courts and Intellectual Property of the House Committee on the Judiciary for the opportunity to address the Subcommittee on the important issues underlying whether and to what extent copyright reform or clarification is needed in order to facilitate the National Information Infrastructure (the "NII").

II. Introduction

This testimony addresses the broad question of whether the present scope of H.R. 2441 ought to be expanded to address issues and uncertainty surrounding the copyright liability and related duties of online service companies -- whether providing proprietary online services, providing network access services to the World Wide Web and other Internet sources or providing both (collectively, "OLS companies"). Although this testimony may not offer answers on a topic as complex as this that are satisfactory to all, it is hoped that it will provide, at least, a perspective that has not been central to the development of H.R. 2441 but that will prove helpful in analyzing whether that bill is sufficient in its present state.

The gist of these comments will be to suggest that clarifications are both necessary and appropriate, but not only to protect copyrighted works, but also to protect the very infrastructure that will make them available, as well as the interests of those for whom they have been

created — the people at large. It is also hoped that these comments will provide useful industry insights into the issue of copyright liability fairness.

CompuServe, along with other providers of online services, urge that Congress, in examining potential changes to copyright law that would accommodate the evolution of the National Information Infrastructure, take fully into account the revolutionary nature of these services and their role in furthering core First Amendment values in facilitating and encouraging expression. Online services are growing at a phenomenal pace. No other medium in history has so empowered individuals in their ability to communicate with one another on virtually an "all-to-all" basis. The largest of the proprietary online services in the U.S., for example, connect over 30 million people worldwide through the Internet community and local bulletin board operators, and have approximately eight million subscribers on their own.

Against the backdrop of these developments, Congress should look to whether the existing copyright law, the attendant uncertainties or any proposed changes to the law, would impair communication and access to information through online services. If application of copyright principles were to have such an effect, the constitutional ramifications — chilling the flow of electronic speech among Americans — would be substantial. Current standards of copyright law liability, as courts are applying it to providers of online services and bulletin board operators, presents a high risk of just such an unfortunate result. In short, it is respectfully suggested that Congress should not miss this opportunity to develop a *balanced* copyright policy, one that will safeguard copyright interests while at the same time permitting Americans to reap the full benefit of using interactive services.

The ISA. CompuServe has been a participant in the debate over NII-driven copyright revisions for some time now. For the most part it has done so as along with other active members of the Interactive Services Association (the "ISA").

As the oldest non-profit North American association serving businesses that deliver telecommunications-based interactive services to consumers, the ISA has been responsive to concerns about the social and political impact of this new interactive medium that millions of Americans use every day. ISA's 300-plus members (Exhibit A) represent the full spectrum of industries now active in delivering personal interactive services. ISA's membership includes companies from the advertising, broadcasting, cable, computer, financial services, marketing, publishing, telephone, and travel industries.

It is taken for granted that the goal of the legislation already proposed (H.R. 2441) is to facilitate the proper development of the NII. It is submitted that this will not occur, however, if the approach to copyright legislation is not broadminded or if it fails to take account of the practical realities of the business of distributing digitized information and providing network access services. Thus, the concerns of content owners as well as those of the infrastructure itself must be considered together -- along with those of the true engine of network communications: the population itself. Convenience-based imposition of bystander-liability on OLS companies is not fair or workable, and ultimately it would frustrate the progress of the NII in this country and perhaps the world.

Care should also be taken against erecting a scheme according to which OLS companies could become defacto arbitrators of copyright disputes. Nor should they be made to bear the cost and other burdens of the copyright enforcement functions that Congress has already well equipped copyright owners to take on.

Where OLS companies are charged with indirect liability for copyright infringement instituted by others, this must be conditioned on showing a meaningful and volitional participation in the infringing conduct, not merely that the OLS company was notified of a

potential infringement and either continued to operate its legitimate business or failed to substitute itself as the protector of the content owner's copyright.

And, as important as any other point, there must be maintained not only a proper preservation of the free and open exchange of ideas, unthreatened by a system pre-programmed to delete content at the drop of a hat, but also an acknowledgment of the damage that would be imposed on the OLS company's relationship with its customers by compelling those companies to consistently "play the heavy" in lieu of the copyright owners themselves.

III. The Online Provider Business: The Terrain; Specific Functions and Copyright Efforts

The Terrain.

Commercial online services allow individuals and businesses to bank, shop, and make travel reservations from their home; access up-to-the-minute news, weather, financial and sport information; utilize a host of instructional, educational, scientific, and other reference databases, participate interactively in special interest groups and electronic bulletin boards on a dazzling array of subjects; and communicate with one another. Increasingly, providers are combining remote interactive and information capabilities with software or CD-ROM information located on users' systems to enable higher speed presentation of graphics and sound. Through interconnection with the Internet, subscribers have worldwide access to databases and are able send and receive electronic mail to and from tens of millions of people around the globe.

The number of subscribers to commercial online services in the United States is estimated at well in excess of eight million. These include individuals, large and small businesses, educational institutions, non-profit organizations and federal, state and local governments. As demonstrated by the growth in providers' subscribership -- and as is widely publicized -- Americans increasingly are communicating with their government, including the President, through online services. Government documents, including bills such as H.R. 2441 and predecessor documents such as the so-called "Green Paper" and "White Paper", are accessible electronically. These communications are all made possible through the services of commercial online providers, local bulletin board operators and the Internet community.

Beyond the larger commercial providers of online services, it is impossible to know the exact number of users of the tens of thousands of computer bulletin boards across the country. By some estimates, there are 60,000 bulletin board operators and content providers connecting some 20 to 30 million users nationwide. Bulletin board operators provide online chat services, public conferences on hobbyist and professional topics, electronic mail systems for corporate communications, customer support services for many businesses, and services that are now creating "virtual communities," which provide information to and facilitate exchanges within special interest groups (for such activities as trade and political organizing) and within membership, cultural and civic organizations.

In addition, millions of users communicate over the Internet and other non-commercial networks. The "network of networks" is here: most subscribers of commercial services can communicate with subscribers of other services, as well as with users of the Internet and other non-commercial networks. All told, by some estimates, 46,000 computer networks, 3.2 million host computers and 30 million people in 146 countries comprise the Internet -- and it continues to grow tremendously each year.

To give the Subcommittee some sense of the scale of the sector and the flows of data handled just by commercial providers of online services, CompuServe and the other industry members who submitted comments on the Green Paper transmit over one-half billion screens of information each week of the year.

The facilities that underlie the networks of providers of online information services are generally obtained from common carriers. Delivery is now being initiated through cable television and wireless distribution channels. Using a personal computer and a modem, subscribers typically obtain access to these networks by dialing in using communications software that, in the case of the commercial services, is supplied by the providers themselves. The providers themselves operate the host computers -- massive complexes of mainframe processors and networked microprocessors in the case of providers such as America Online, CompuServe and Prodigy -- and personal computers, in the case of hobbyist bulletin board operators. To keep up with the enormous increase in subscribership and the demand for interactivity and new sources of information, in the last few years, the amount of processing capacity of the large providers has been increasing rapidly.

The industry is characterized by various kinds of relationships between online providers and their subscribers. Providers and subscribers alike have a keen interest in making the process of opening new accounts as straightforward and simple as possible. Subscribers want to be able to join a service quickly and electronically. Providers need to ensure that new subscribers understand the rules of the road and the obligations that they have with respect to uploading material and communicating over the system. To accommodate these interests and the explosive growth of demand, subscribers' contracts with providers are often entered electronically, with would-be subscribers reviewing the contractual terms of subscribership on their screens. Only those who electronically indicate that they agree with the terms and are willing to abide by the rules are permitted to subscribe, and to remain subscribers.

The charges to subscribers of commercial services also may vary among providers. Some providers charge a monthly membership fee. Fees may also be charged based on the length of time of connection to the system. For specific transactions, including the downloading of a file from a database, an additional fee may be charged. Access to certain specialized services, which may involve access to proprietary databases, may involve a surcharge.

Beyond proprietary online services, millions of Americans also use the public Internet. More and more businesses, however, are providing and receiving full access to the Internet on a commercial basis.

In assessing the standard of liability against which the operations of commercial providers or local bulletin board operators should be measured, Congress should consider that OLS companies, like the Internet itself, are principally engaged in the transmission and storage of billions of bits of information and, like those who are responsible for the Internet's operations, may have no practical ability to control, on a real-time basis, the content of the information traveling over or residing on their systems. For this reason, and as described below, all system providers and bulletin board operators should be held to a standard of liability for copyright infringement that recognizes the realities of their operations.

Specific Functions Performed by Online Service Providers

The online information services sector is not monolithic in terms of either its relationship with subscribers or in how it provides and manages the information that is made available to them. In refining intellectual property laws to accommodate the various modes of operation, it is important for Congress to understand these differences and their relevance in assigning accountability and responsibility.

Providers of Internet and other online services perform a range of functions in connection with the various services that they offer. Among these are the "system function," which includes facilitating communications among subscribers and storing and processing information. OLS companies also may establish and manage, or have managed, virtual electronic "areas" on their systems, which facilitate interactive communications within a special interest group -- the "special service function." Finally, providers of online services also may function as "information providers" at times, in which they originate content that they make available to their subscribers.

In performing the so-called "system function," providers of online services and bulletin board operators provide communications and processing capabilities. This system function has various components. These may include, among others, arranging for the telecommunications networks that carry information generated by others, including subscribers; supplying the communications software and creating the online environment that enables subscribers to communicate with one another and access databases; and operating host computers.

When providers perform the "special service function," whether through their own employees, volunteers or commercial independent contractors, their role in facilitating interactive special interest group communications can have various dimensions. Those who perform the special service functions may act as an electronic "traffic cop" -- assigning times for real-time conferencing among some or all members of the group -- or they may address specific issues that are within the sphere of interest of the group. Another element of the special service function is archiving electronic conversations among the members of the groups, including "threads" from bulletin board interactions, and indexing them for future retrieval. Although they may perform certain management tasks, in carrying out the special

service function, providers are no more able to undertake real-time review and monitoring of the contents of data uploaded than when they perform the system function.

Providers of online services, in performing the system and special service functions, simply cannot review and monitor all data that is transmitted over or stored on their networks or bulletin boards. As described above, trillions of bits of data -- representing millions of individual messages -- travel across the country and around the world each day. Aside from when they are themselves the information provider, providers of online services do not know what is being uploaded onto, transmitted through, stored on and downloaded from their systems. These materials are uploaded real-time by subscribers, and providers cannot and do not monitor or review all this information to determine whether the messages infringe copyright, defame any individual or otherwise may violate the law. Conversely, if they were required to do so, the burden would result in no less than bringing their businesses to a halt almost immediately, cutting off the flow of information and communications to millions of people.

Providers of online services are, in many respects, analogous to distribution companies, such as truckers or airlines, or to the post office, or to communications companies. They essentially provide the means by which individuals can exchange information or communicate. They are not themselves responsible for originating, managing, or reviewing content. Like bookstores and libraries, or communication and other distribution companies, because providers do not know the contents of the messages that they are transmitting or distributing on a real-time basis, they are unable to use content as a basis for limiting users' access to their systems unless they have actual knowledge that the material is infringing or otherwise unlawful.

Online service providers can and do cooperate with law enforcement personnel when illegal behavior, such as a threat of violence, is brought to their attention by the authorities. When, however, the information on the system is alleged to infringe a copyright, it may be much more difficult for providers to know if action is needed. Except in the most obvious of cases (or where sufficient information describing the material is uploaded with it), providers would not be able to determine whether information that has been uploaded and stored on their systems infringes the work of another, is original with the uploader, is in the public domain or whether the subscriber's upload otherwise falls within defenses such as fair use.

Providers' Actions to Protect Copyright Interests

OLS companies have enormous respect for the importance of intellectual property law, most of them being in the business of creating valuable intellectual property (such as software products) or holding valuable rights themselves. Although it is impossible for providers performing the system and special service functions to review all the data transmitted over their systems for purposes of compliance with copyright law, they do, nonetheless, employ a variety of measures to safeguard copyright owners' rights.

First, providers' agreements with their subscribers make users aware of their obligations under copyright law and place responsibility for compliance firmly on the users. By way of example, CompuServe's Online Information Service Agreement and Operating Rules are attached hereto (Exhibit B). Many providers also use screens that advise users of the intellectual property consequences of uploading files, periodically repeat warnings to subscribers that uploading copyrighted material without authorization is a violation of the law and include copyright notices for third-party information.

Second, providers may take measures to ensure that, to the extent possible, the entity responsible for the special service function is aware of the importance of complying with

intellectual property laws. To the extent that those performing the special service function are made aware of infringing activity or material, they may have contractual or other responsibilities to remove it when it comes to their attention and in exercising their due diligence.

Third, most providers expressly reserve a contractual right to remove any content uploaded by any party for any reason. They do not, however, undertake to monitor all content actively and on a real-time basis, which both is impossible and would destroy the speed and effectiveness of the communications tools that they provide. However, this reservation of rights permits the service provider to take actions that may be necessary under unexpected circumstances, such as flagrant and obvious violation of copyright rules.

Fourth, providers also may terminate or limit a subscriber's right of access to a particular service or service area (such as a bulletin board or a special interest group) or to the system as a whole. Providers often have different levels or types of access for subscribers and the response to infringing conduct can, therefore, be calibrated. Online service provider may be notified of or may otherwise identify a particular abusive subscriber. If the entity responsible for performing the special service function is an independent contractor, that entity can be notified with respect to whether that subscriber should have access to that service area, and action may then be taken to limit that subscriber's activities. Some providers may terminate the access of an individual abusive user on a household account.

In summary, providers of online services and bulletin board operators are highly sensitive to the importance of intellectual property. Consistent with their methods of operation and economic realities, they do a great deal to ensure that copyright interests are protected.

IV. Liability and Related Problems the NII Legislation Should Solve.

The online industry feels it is unreasonably and unfairly at risk for copyright infringement liability with respect to the activities of others in connection with digital information. And it further believes that this exposure not only imposes inappropriate costs and other burdens on OLS companies, but that this imposition is harmful to the development of the NII.

(Note, these comments do not deal with the possibility that an OLS company would itself infringe copyright with respect to its own content creation or work product. No special relief or legislative action is suggested regarding that kind of infringement, were it to occur.)

There are essentially three forms of copyright infringement liability: direct infringement; contributory infringement; and vicarious liability for infringement. Direct infringement means that a person has itself violated one of the exclusive rights of a copyright owner, by, without permission or some other defense, copying, making a derivative work of, publicly distributing, publicly performing or publicly displaying a copyrighted work. Contributory infringement means, with knowledge of the infringing conduct of another, inducing, causing or materially contributing to the infringement. Vicarious liability can attach to an OLS company for the infringing conduct of another person if the company had both the right and ability to control the infringing actions of the person and received a direct financial benefit from the infringement.

With this background understanding in mind, several liability and related problems can be identified as requiring legislative correction and/or clarification consistent with the administration's goal of facilitating a productive and orderly development of the NII:

A. The OLS companies are faced with copyright liability without knowledge of the infringing conduct. (This arises under theories of “direct infringement” as well as “vicarious liability”.) In the case of *Playboy Enterprises, Inc. v. Frena*, 839 F.Supp. 1552 (M.D.Fla. 1993), an online provider was held liable for *direct* infringement of copyright with respect to images uploaded by others to the defendant’s bulletin board service, even though the evidence showed that the defendant itself undertook no volitional act of infringement and did not know of the infringing images. This result was perceived by many as contrary to established law and as a serious risk to online service providers whose respective services commonly receive countless uploads of content daily. Although the federal district court in the recent case of *Religious Technology Center v. Netcom On-Line Communication Services, Inc.*, 1995 WL 707167 (N.D.Cal. 1995), has cast doubt on the correctness of the conclusion in *Frena*, inconsistent federal district court decisions hardly constitute a model for orderly relationships and business certainty – thus a legislative clarification is not merely appropriate, but necessary.

B. The *Netcom* court’s discussion of vicarious liability raises a second problem. There, the court appeared to be prepared to entertain the notion that an online service company could be liable for the infringing activities of a customer under the theory of vicarious liability. The doctrine of vicarious liability is based on the relationship between an employer and its employees or agents. It contends that since the employer is able to control the actions of the employee or agent and is positioned to gain direct benefits from those actions, that it is fair and good public policy to hold an employer liable for those acts of its employees and agents that are carried out within the scope of their employment or agency. But the nature of the relationship between an OLS company and its customers (or other third party suppliers of content) is such that even when there are written contracts in place,

there simply does not exist the kind of control or relationship such that one party (the customer) can fairly be said to be acting under the supervision of and for the direct benefit of the OLS company. Accordingly, contributory infringement, and not vicarious liability, is the appropriate doctrine for addressing possible liability by an OLS company for the infringing conduct of another.

C. With respect to contributory infringement, then, the same clarification proposed for direct infringement should be made: there must be a volitional act by the OLS company in furtherance of the infringement before the OLS company can be held to have made a material contribution to infringement of which it has knowledge. In the *Netcom* case, although the court focused primarily on whether the defendant Netcom had the required *knowledge* of the customer's allegedly infringing conduct, it appeared willing to consider nothing more than the continued operation of its network facilities as a sufficient act in furtherance of the customer's allegedly infringing conduct. When this is added to the companion problem that the court did not require firm knowledge of the alleged infringement, but only a likelihood of infringement, it quickly becomes apparent that where it does obtain notice of *possible* infringement, an OLS company is faced with a very real risk of copyright liability as a co-conspirator (i.e., a contributory infringer) even though it has not taken any volitional act in furtherance of any infringement motive and even though it is not even sure if there is in fact any infringement.

D. As a natural result of these unreasonable exposures to liability, OLS companies are exposed continuously to high levels of uncertainty and, consequently, are being made to bear a significant responsibility and liability for the wrongful acts of others.

E. Accordingly, OLS companies are also being compelled to spend considerable time, money and other resources both protecting the private property of copyright owners – and often very well funded copyright owners at that, often many times larger than the OLS companies they have targeted, and who could perform this enforcement themselves, and do it better – and litigating disputes with copyright owners who are taking advantage of this opportunity.

F. These odd results distract OLS companies from their business -- to the detriment of the NII. This necessarily stalls development of the NII, and it siphons off valuable resources from these companies.

G. Moreover, all of these circumstances actually incent copyright holders to ignore the real infringers – even when they are aware of them. This does the opposite of engender a climate of copyright responsibility online and on the Internet. Instead it teaches that infringement can be a safe practice as long as there is someone else more visible on the scene to draw a copyright holder's attention. This message of irresponsibility and non-accountability must be stopped if the NII is to develop and flourish.

Sadly, the copyright owners themselves are helping this message go out. Just this situation arose in the recent *Frank Music* case. In this recently settled class action litigation against CompuServe, allegations were made that copyrighted songs in MIDI file format were residing and available for downloading in several areas on the CompuServe Information Service. Although these areas were managed by a variety of independent companies and operators, the plaintiffs did not add any of these

Forum Managers to the lawsuit, preferring instead to sue a single, more visible party -
 - the online service provider.

H. Finally, there is rarely if ever a frank recognition and acknowledgment that when copyright owners seek and expect practical assistance from OLS companies in dealing with acts of alleged copyright infringement by others, that the essence of this phenomenon is an imposition of a significant investigatory and enforcement responsibility and burden by one innocent party upon another.

V. Why these Problems Deserve Resolution

Although in large part self-evident, numerous reasons may be forwarded in support of the call for a resolution of these problems. Some of them are highlighted below.

- Congress has already settled the matter of who is responsible for copyright investigation and enforcement: copyright owners. By the very powerful remedies afforded under the Copyright Act, Congress has empowered copyright owners to themselves defend their property. These tools include: Statutory damages; Recovery of Attorney's fees and defense costs; Recovery of the copyright owner's lost profits; Recovery of profits realized from the infringement; Injunctive relief; Impoundment remedies; Strong ownership and validity presumptions that make proof of these otherwise very difficult elements very easy for the copyright holder, and a very easy and cheap mechanism for obtaining a Copyright Registration.

- These powerful rights assure that copyright owners will not be helpless or without recourse.

What is suggested is that these resources be trained on the appropriate party. Let the copyright owners make it known that those who actually infringe copyright will feel the sting. Then we will begin to see even further awakening of the much clamored for respect for copyright -- at the popular level.

- Requiring the OLS company to investigate the facts, perform the copyright analysis and reach a conclusion -- all of which can be quite difficult to do even after very lengthy periods of litigation involving high quality copyright and trial practice expertise -- is simply unfair and unnecessary. Yet this is what appears to be contemplated under some interpretations of current law, unless the OLS companies are simply to remove all content of which they are notified, by exercising broad contractual discretion reserved by them in agreements with their customers. This practical shifting of responsibility from the owner of the property to a third party whose systems may be misused against its wishes, warnings and contractual terms, is not only patently unfair, but because it tempts OLS companies to take the easy route of deletion of communications, it jeopardizes the very success of the NII itself, it threatens to frustrate First Amendment-based expectations and it is bound to strain the relationships between the OLS company and its customers.

- Even if the OLS company boldly sets out to resolve the thorny questions of an alleged infringement, it is thereby taking on a task it is not well suited to do (because it is in essence a distributor and network access provider, not a creator or editor of copyrighted works) -- and it inevitably becomes a defacto arbiter of copyright disputes that are truly between others. And the difficulties associated with arriving at a conclusion of whether a set of circumstances is likely to constitute infringement are daunting. They involve questions of fair use, ownership, substantial similarity, validity of the underlying copyright, merger doctrine, distinguishing facts and ideas from expression, parody, public domain issues, license, laches,

copyright misuse and various other issues -- the stuff that has given courts and experts fits for years. It is simply unreasonable to tell an OLS company to make these decisions in the ordinary course of its business day and to accept the repercussions and liability itself if it decides incorrectly or unwisely.

- Where a third party has not itself done anything to infringe a copyright, and in fact continuously takes steps to *discourage* copyright infringement, it is contrary to fundamental notions of fairness to hold him responsible for that infringement. OLS companies already combat copyright infringement in their contracts with their suppliers and business alliance partners, with their members (see Exhibit B), in online screen warnings and through repeated formal and informal direct dealings with all of these parties.
- Finally, but very importantly, where a device, system, product or service has substantial purposes and uses that are in no way illegal or even inappropriate, and that in fact have tremendous positive, non-infringing value, those same facilities should not be treated as if they were in conspiracy with infringers simply because some users of these tools decide to abuse them. And this is especially true when the service at issue -- such as an online service -- actually supports one of the fundamental objectives of the Copyright Act itself: the advancement of the useful arts through the free exchange of ideas and information. And this rationale is also supported by the U.S. Supreme Court's decision in the case of *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).

In *Sony*, the Supreme Court indicated that contributory infringement might lie where the contributory infringer "was in a position to control the use of copyrighted works by others and had authorized the use without permission from the copyright owner." In the absence of any such ability to control or actual knowledge, the Supreme Court concluded, manufacturers of products that are otherwise "capable of commercially significant

noninfringing uses" may not be contributorily liable for copyright infringement. Inasmuch as virtually all providers offer services that, overwhelmingly, are used for "legitimate, nonobjectionable purposes," the sensible standard developed in the *Sony* decision for contributory liability should be a model for the standard that would apply to OLS companies.

To take a contrary approach would require characterizing the mere continuation of the operation of an online service or communications facility as a *culpable act of infringement* just because a notification is received that one or a few persons out of millions is using that facility for an infringing purpose -- even though there is virtually never certainty that a disputed allegation of infringement is true. But the effort of trying to solve the allegation is in many cases bound to be quite costly, time-consuming and disruptive.

VI. Key Principles For Resolution

Although there could be a wide variety of solutions posed for dealing with the problems here articulated, the following principles should be satisfied by *any* resolution that is finally adopted.

First -- No Requirement of Copyright Analysis.

The intensive factual investigation and legal copyright analysis should not be required of online companies regarding the infringement of others. OLS companies are not particularly well equipped to do this analysis; in fact, the copyright owner is far better better equipped; and it is a completely unacceptable shifting of the burdens of ownership of private property away from the proprietor -- who retains all the *benefits* of ownership.

Second – Meaningful Participation in the Wrongful Conduct Must be a Condition for Indirect Liability.

Except in the case of employer-agent vicarious liability, there should be no liability for the infringing conduct of others (indirect liability) without meaningful participation in the wrongful conduct: (1) actual knowledge of the infringement and (2) with such knowledge, a material and volitional act of contribution to the infringement – certainly something *more than* conducting ordinary-course business activities which have substantial valid and non-infringing business purposes is required.

Third – No Direct Liability Without a Volitional Act that Causes the Infringement.

There should be a legislative clarification of the same point clarified by the court in the recent *Netcom* case: there cannot be direct infringement without a volitional act of infringement by the defendant. Thus, it cannot be a *direct* infringement of copyright by an OLS company when a user uploads infringing content.

Fourth – Respect for the Customer Relationship.

OLS companies should not be pressured – by imposition of a third-party liability and enforcement scheme – into taking actions against their customers where there is uncertainty as to the validity of those actions. This will teach our customers to distrust us, and may well ruin the NII in the process. This is especially compelling where there is recourse available by the copyright owner itself.

VII. Two Pending Solutions

One approach proposed thus far is “no solution”. H.R. 2441 offers no resolution whatsoever for the problems articulated above. This is consistent with the recommendations of the so-called White Paper issued by the Working Group on Intellectual Property Rights, but this approach appears to reflect only considerations of copyright owners, without due consideration of the needs of the infrastructure that is to constitute the NII. Indeed, one court (the *Nercom* court) has already taken issue with the failure of the White Paper to appreciate the significance of the issues raised by the online industry and other persons concerned about the free flow of ideas.

Another proposed solution -- an “Owner-Notification” solution -- is set forth at Exhibit C. This approach essentially requires a detailed notification by a copyright owner to an OLS company with respect to an infringement on the OLS company’s system, a specific request by the copyright owner for the removal of the allegedly infringing content and a failure of the OLS company to timely remove the content in question before the OLS company could have liability for the allegedly infringing content. The result is an exemption from indirect liability if the OLS company takes swift action based on a strong notification and allegation of infringement from the copyright owner.

The virtues of this approach are that it correctly puts most of the onus of proving an infringement where it belongs -- with the copyright owner. It recognizes that OLS companies could be compelled to act as third-party enforcement mechanisms, and it therefore requires protection for them. By requiring a strong notification in the first place, this approach also recognizes the need for OLS companies to be confident that any act they would take to delete content is well founded, it recognizes that users of copyrighted works are

entitled as a matter of public policy to protection from a regime that would too easily result in the deletion of information from public view and it recognizes that the burden of copyright analysis should be on the copyright owner, not on third party distributors and network access providers. From a copyright owner's perspective, this approach provides copyright owners an opportunity for quick relief as long as they have a claim that can be documented clearly enough to show that quick relief is warranted.

It should be kept in mind that in no way is this the only avenue open to the copyright owner. It may still proceed directly against the other person(s) it believes are responsible for the alleged infringement. Also, it should further be kept in mind that the OLS company is not *required* to delete content on receiving a notice, although there would be strong incentive for it to do so.

There are nevertheless two possible criticisms I see to this approach. And each deserves attention separately.

First, this approach could provide an incentive to some online companies to remove content as a first resort, without a rigorous evaluation of whether the content is infringing. From a far-sighted perspective, this is not a healthy development for the NII overall. On the other hand, many OLS companies will be under countervailing pressures from their customers and competitors to be protective against such a development. To the extent this concern is truly valid, however, this potential flaw could be cured by the added clarifications suggested in this statement regarding both direct infringement (volitional act of infringement needed) and indirect infringement (actual knowledge plus a volitional act of contribution to the infringement). See Part VI above. This could then provide OLS companies with sufficient legal basis for refraining from policies of automatic deletion upon notification.

A second criticism of the Owner-Notification approach might be heard -- that clarifying liability principles in this way will take away an incentive for OLS companies to prevent and combat infringement. In addition to the points already made above regarding who truly should have this responsibility in the first place, this ignores two fundamental truths: (1) OLS companies are copyright owners too and therefore already have this incentive; and (2) there are many practical business pressures on OLS companies for them to continue to provide the copyright assistance currently provided. OLS companies must work very closely with copyright owners of all kinds in connection with content-related alliances, ventures, licenses and other transactions that fuel the very business in which OLS companies find themselves: distributing content and providing network access to information sources. Thus the considerable and persistent anti-infringement efforts already undertaken by OLS companies are not in risk of extinction.

Although the above responses to these potential criticisms are themselves considerable, reflective of practical realities and probably more than sufficient to address the cited concerns, this statement is in no way intended to foreclose further thoughts and proposals. Indeed the opposite is the case. Appropriate respect for the proposition that there is an important need for *practical* arrangements for addressing copyright infringement in a digital environment demands nothing less.

For example, one such additional proposal for consideration is as follows: In those cases where an OLS company receives a complaint from a copyright holder about infringing content on systems the OLS company controls, the OLS company would promptly contact the provider of the identified content (e.g., a customer or a content supplier or other similar party to a contract with the OLS company) and require that that party either tell the OLS company, in writing, that it has determined that it had sufficient rights to post the material in question OR that it will immediately withdraw/delete the material (or that the OLS

company is requested to do so). The OLS company's outgoing notification might also advise the content provider, as appropriate, that prompt compliance may prevent the OLS company from being required to convey identifying information to the copyright holder, and that the failure of the OLS company to receive such a response immediately will result in increased likelihood of action directly against the content provider by the copyright holder. (The notification would likely also make a reference to the party's contractual duties to the online company regarding compliance with laws and possible indemnity obligations.) So long as the OLS company carries these notifications out in a timely manner, it would also receive the same exemption from indirect liability that is provided for in the current Owner-Notification approach. Of course, if the content is removed the copyright owner has received relief. If the content provider does not respond or asserts that it had sufficient rights to post the material in question, the copyright owner would still be free to pursue the matter directly.

In those cases where the allegedly infringing content is not on facilities controlled by the OLS company, but the company takes reasonable steps to assist the copyright owner in identifying the party that does control the hosting facility (upon receipt of a subpoena if necessary), this too would entitle the OLS company to the same liability exemption.

VIII. Conclusion

If the goal of the legislation already proposed is to facilitate a sound and orderly development of the NII, it will not be realized by attending only to the concerns of content owners, perpetuating legal uncertainties and ignoring the legitimate interests of the infrastructure as well as those of the *real* drivers of this new medium -- the users. Imposing bystander-liability on OLS companies is unfair, unworkable and ultimately will frustrate the progress envisioned for the NII. OLS companies should not be made defacto arbitrators of copyright disputes and compelled to perform and bear the cost of the enforcement and analysis functions that Congress has already well equipped copyright owners to take on. Where OLS companies are charged with indirect liability for copyright infringement instituted by others, this must be conditioned on showing a meaningful and volitional participation in the infringing conduct, not merely that the OLS company was notified of a potential infringement and either continued to operate its legitimate business or failed to substitute itself as the protector of the content owner's copyright. And finally, but by no means least, there must be maintained not only a proper preservation of the free flow of information and exchange of ideas unthreatened by all-too-easy deletions of communications, but an acknowledgment of the damage that would be imposed on the OLS company's relationship with its customers by compelling them to consistently take on a role that inevitably (although unfairly) will be labeled "censor" -- and to do so in lieu of the copyright owners themselves.

EXHIBIT A--ISA Membership

Interactive Services Association
Updated 2/1/96

1-800-FLOWERS
A.T. Kearney
A2D LP
Acca-Cometique
Accordance Corporation
Accu-Weather Inc.
Accurate Info Ltd
Accorn
Advanced Telecom Services
Aege Publishing Group
AGT Directory Limited
Air France
Air One Inc.
Alcatel Business Systems
Alcatel Communications
América Online
American Greengrass
American Travel
Amertech
AMS Media Corporation
Apple Online Services
Aren Communications Inc.
Associated Press Information Services
AT&T
ATLANTIC-ACM
Audience News, Inc.
Aural Digital Conference Marketing (ADCM)
B.F.D. Productions, Inc.
Bank of America
Bank South
Barnes & Noble
BBDO Interactive
Bell Atlantic Media Ventures
Bell Canada
Bellcore
Bentley Systems Public Company, Limited
Bloomberg Business News
BPI Entertainment News Wire
Budd Lerner Gross Rosenbaum Greenberg & Saks
BureauCom Corporation
Business Research Publications
Cabin Fever Entertainment
Cable TV Administration & Marketing Society, Inc.
Cable, Richards & Reed
Call Interactive
CANNEX Financial Exchange Limited
Capital Games Inc.
Caviness Associates
CFI ProServices, Inc.
Chenier Pacific Bank
Chase Manhattan Bank, NA
Chickadee Corporation
CISCO Incorporated
CIM
Citibank
City of Hampton
CMP Publications - Interactive Media
Coe Group
Columbia TriStar Television
CompuServe Incorporated
Comnet Scientific
Concurrence Research Corporation
Connum Associates, Inc.
Connect, Inc.
Consumer Reports - Consumers Union
Continental Cablevision, Inc.
Control Data Systems
Conversion Information Systems
Corporate Performance, Inc.

Council of Better Business Bureaus
Courtroom Television Network
CUC International
Cybercast
CyberCubes Inc.
Cyberlink
D.E. Shaw & Company
Dartmouth International
DataTimes
Deutsche Telekom
Decision, Shapiro & Morn, L.L.P.
Desktop Recovery Yellow Pages
Discovery Communications, Inc.
Dittmer Assoc., Inc.
Don Allen Associates of NJ, Inc.
Dow Jones & Company, Inc.
Dow Jones & Robertson
Dun & Bradstreet International - Elect. Commerce
Duncan Resource Group
Dunnington, Bartholow & Miller
Eaton Media Group
EchoVision, Inc.
EDS - Electronic Commerce Division
Education On-Line
EDventure Holdings, Inc.
Electronic Messaging Association
EDN Corporation
Epsilon
Epilink Data GmbH
Ernst & Young LLP
Etak, Inc.
Escalibur Technologies Corporation
Federal TransTel, Inc. - FTT, Inc.
Felicia Kincaid
Fidelity Investments
FindSVP
Fingerhut Corporation
Fishman-Hillier, Inc.
Ford Motor Company
Forrester Research
FreeMark Communications, Inc.
FTD Direct Access, Inc.
Futaba Cultural Technologies
Gary D. Schultz
General Electric
General Media Worldwide Online Services Inc.
Ginsburg, Feldman and Bress
Global Growth Strategies
GRAFF Pay-Per-View
GrayFire Information Services
Greenhouse Associates, Inc.
GTE Main Street
Hall Doctor Kent Friedman & Wood
Hallmark Cards, Inc.
Hamilton Consultants
Hayes Strategies
Heartland Regional Network
Hewlett Packard
Home Box Office (HBO)
Home & Family Computing SuperShow
Honeywell, Inc.
Howard, Sloan, Koller Group
HSH Interactive, Inc.
Hughes Aircraft Co.
ICN Ltd.
IDD Enterprises, L.P.
IdeaCast
Ipsos Interactive Inc.
Individual, Inc.

Info Access Inc.
InfoSeer Corporation
Institute For the Future
Intel Corporation
Intellectual Capitalism, Inc.
Intermedia Sports Inc.
Interactive Consulting Group
Interactive Development Corporation
Interactive Enterprises, Inc.
Interactive Marketing, Inc.
Interactive Media Associates
Interactive Media Corporation
Interactive Media, Inc.
Interactive Media Works
Interactive Multimedia Association
Interactive Network
Interactive Publishing
International Telemedia Associates (ITA)
ISED Corporation
Issue Dynamics
IT Network, Inc.
ITT World Directories
IVI Publishing, Inc.
iVillage
J. Walter Thompson USA
Jared, The Galleria of Jewelry
JCC Technologies, Inc.
John Hall & Company
Jupiter Communications
Kelly, Tate
Kearns Corporation
Ketchum Interactive Group
Knowledge Factory
Lapin East-West
LaBout, Lamb, Greene & MacPhee
Legacy TV Inc.
Lehman Associates
LifeNet
Long Distance Billing Company
Los Angeles Times
Loto Quebec
M/S Database Marketing
MacInfo Corporation
MacInfo Enterprises, Inc.
Mancini, Inc.
Marketing & Advertising Services Center, Inc.
Marketing Corporation of America
Martin Haniel Corporation
MasterCard International
McClatchy Newspapers
MCI Communications
Mellon Bank, NA
Mendon Bank
MES Consulting
Metromat Corporation
Micro Voice Applications Inc.
Microsoft
MidRun HF
Midwest US Inc.
Minge Marketing
Morris Information Services
MSB Associates
MultiComm Development
Multimedia Resources, L.L.C.
Muzak
National Telephone Enterprises
NetWest Bank
Netbase Communications Corporation
Network Computing Devices

Network Telephone Service
 News Meetings/Information Ltd. (NMI)
 New Media Corporation
 New Tech Telematics
 News Times Inc./ATI Communications
 New York University
 News America New Media
 Newday
 NIFTY Corporation
 Nippon Corporation
 Noriel
 North American Publishing Company
 NPD Group
 NTH Communications, Inc.
 NTT Chubu Directory Co., Ltd.
 MUSTAR International, Inc.
 NYNEX Corporation
 OCLC Online Computer Library Center, Inc.
 Ogilvy & Mather Direct
 Online Interactive
 Open Market, Inc.
 Pacific Bell
 PAFET
 Painted River Partners
 Parks Associates
 Pat Dunbar & Associates
 PBS Internet Publishing Group
 PC Financial Network
 PC Flowers & Gifts, Inc.
 Peapod LP
 Personal Library Software
 Philips
 ProCast/Right, Inc.
 Phoenix Newspapers, Inc. (PAFET)
 Phone Programs, Inc.
 Physicians' Online, Inc.
 Phoenix, Ltd.
 PR Newswire
 Press Libris, S.A.
 Presentation Works
 Private Interactive Services
 Privacy & American Business
 ProTel
 Prodigy Services Company
 Publications Resource Group
 Pulitzer Publishing Company
 Realty Online, Inc.
 Rede de Televisão Aberta
 Reuters New Media, Inc.
 Rosenblatt Vacations
 SABRE Interactive
 Sachs Communications Group, Inc.
 Saco River Tel & Tel Co.
 Salomon Telecommunications Associates
 Sarcoma Corporation
 SBC Communications
 Scripps Howard
 SECOM Information System Corp.
 Seefinger Communications
 Senohat
 SIMBA Information Inc.
 Simultronics
 SITEL Corporation
 Skynet
 SmartTel Communications
 SmartServ Online
 Southern Electronic Publishing
 Spencer Stuart
 Spinnaker, Inc.
 StillLine, Inc.
 Springfield Productions/The Workshop
 Sprint Telematics
 St. Clair Interactive Communications

Starwave Corporation
 StockMart, Inc.
 Stovine Associates, Inc.
 Strategic Systems, Inc.
 Strategic Telematics
 Stratus Centers International Corporation
 Swiss Online
 Synchro Management Associates Inc.
 Synetics Inc.
 Targus Information Corporation
 (TDF) Telediffusion de France
 Tachet/Tuts University
 Teco Communications Group
 Telle Denmark/Klas Publishing
 Tele-Lawyer Inc.
 TELE-TV
 Telesite Systems
 Telecom Finland
 Telecompus Corporation
 Telefonica Publicidad e Informacion
 TeleMedia Network Inc. - Simple Access
 Telematics Network, Incorporated
 Telesite Systems, Inc.
 TELMO ry
 Telo Konsult
 The Boston Consulting Group
 The Globe & Mail
 The Hotel Industry Switch Company
 The InfoWorks Group
 The Irish Times
 The Kelsey Group
 The Marx Group
 The Polyester Institute
 The Promus Hotel
 The Reference Press, Inc.
 The Tele-Publishing Group
 The Warfield Review
 The Weather Channel
 The WELL
 The Yankee Group
 Thomson & Thomson
 Ticketmaster
 Total Entertainment Network
 Trademark Register
 Tremblay & Company
 Tribune Interactive Network Services
 Tribune Media Services
 TV Data Technologies
 U.S. Postal Service
 U.S. WEST Online
 United Advertising Publications
 Universal Telematics Corporation
 US Order
 USA Tax Service
 USA Today-Gannett Information Services
 Usenet, Troy
 Val-Pak Direct Marketing Services Inc. (DMS)
 VeriFone, Inc.
 VIACOM Interactive Media
 Vicory Interactive Systems, Inc.
 Videos Development
 Videway Communications Inc.
 VISA
 VISION Integrated Marketing
 Visual Services Inc.
 Voice FX Corporation
 Vols, Gruppo, & Capell, Inc.
 VRS Billing Systems Inc.
 Washington Post Company
 Weather Concepts Inc.
 Weather Service Corporation
 Weissmann Travel Reports
 West Interactive Corporation

Wilcox & Savage
 Williams Television Time
 Wine Communications
 Working Assets Long Distance
 WordScope Strategies
 Wordview Systems Corporation
 Wunderman Case Johnson, ICG Group
 YAHOO!
 Ziff-Davis Interactive
 Zycron Network Services, Inc.

EXHIBIT B

CompuServe's Online Information Service Agreement
and Operating Rules

COMPUSERVE ONLINE INFORMATION SERVICE AGREEMENT TERMS

1. The CompuServe Information Service (the "Service") consists of computing and information services and software, information and other content provided by CompuServe Incorporated ("CompuServe"), as well as access to services, software, information and other content provided by third parties (collectively, "Third Party Content"). These terms and any Operating Rules published over the Service constitute the entire and only agreement (collectively, the "Service Agreement") between CompuServe and member (one who has an account with CompuServe for the Service), including member's designated users with respect to the Service and supersede all other communications and agreements with regard to the subject matter hereof.

2. Upon notice published over the Service, CompuServe may modify this Service Agreement, (including the Operating Rules) or prices, and may discontinue or revise any or all other aspects of the Service in its sole discretion and without prior notice.

3. Unless otherwise agreed, member's right to use the Service or to designate users is not transferable and is subject to any limits established by CompuServe, or by member's credit card company if billing is through a credit card.

4. Member agrees to indemnify CompuServe against liability for any and all use of member's account.

5. Member is responsible for and must provide all telephone and other equipment and services necessary to access the Service.

6. Member shall pay, in accordance with the provisions of the Billing Option selected by member, any registration or monthly fees, connect time charges, minimum charges and other charges incurred by member or its designated users at the rates in effect for the billing period in which those charges are incurred, including but not limited to charges for any purchases made through the Service and any surcharges incurred while using any supplemental networks or services other than the Service. Member shall pay all applicable taxes related to use of the Service by member or its designated users. Information on connect time charges and surcharges (if any) that are incurred by a member will be made available to the member online. Although certain areas of the Service may be designated as free of charge, member acknowledges that CompuServe incurs substantial costs in maintaining these areas. Accordingly, if in CompuServe's judgment the member's account reflects an excessive number of hours in such areas, CompuServe reserves the right to charge for such excess (at normal connect time rates).

Member shall be responsible for all use of the Service accessed through member's or its designated users' password(s). For example, member may allow individuals in its household to use the Service through member's account. Member acknowledges that member is aware that areas accessible on or through the Service may contain material that is unsuitable for minors (persons under 18 years of age). Member agrees to supervise usage of the Service by minors whom member permits to use the Service.

7. MEMBER EXPRESSLY AGREES THAT USE OF THE SERVICE IS AT MEMBER'S SOLE RISK. NEITHER COMPUSERVE NOR ANY OF ITS INFORMATION PROVIDERS, LICENSORS, EMPLOYEES, OR AGENTS WARRANT THAT THE SERVICE WILL BE UNINTERRUPTED OR ERROR FREE; NOR DOES COMPUSERVE OR ANY OF ITS INFORMATION PROVIDERS, LICENSORS, EMPLOYEES OR AGENTS MAKE ANY WARRANTY AS TO THE RESULTS TO BE OBTAINED FROM USE OF THE SERVICE. THE SERVICE IS DISTRIBUTED ON AN "AS IS"

BASIS WITHOUT WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF TITLE OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, OTHER THAN THOSE WARRANTIES WHICH ARE IMPLIED BY AND INCAPABLE OF EXCLUSION, RESTRICTION, OR MODIFICATION UNDER THE LAWS APPLICABLE TO THIS SERVICE AGREEMENT. NEITHER COMPU SERVE NOR ANYONE ELSE INVOLVED IN CREATING, PRODUCING OR DELIVERING THE SERVICE SHALL BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF USE OF THE SERVICE OR INABILITY TO USE THE SERVICE OR OUT OF ANY BREACH OF ANY WARRANTY. MEMBER EXPRESSLY ACKNOWLEDGES THAT THE PROVISION OF THIS PARAGRAPH SHALL ALSO APPLY TO ALL THIRD PARTY CONTENT AND ANY OTHER CONTENT AVAILABLE THROUGH THE SERVICE. MEMBER AGREES THAT IT WILL NOT IN ANY WAY HOLD COMPU SERVE RESPONSIBLE FOR ANY SELECTION OR RETENTION OF, OR THE ACTS OR OMISSIONS OF, THIRD PARTIES IN CONNECTION WITH THE SERVICE (INCLUDING THOSE WITH WHOM COMPU SERVE CONTRACTS TO OPERATE VARIOUS AREAS ON THE SERVICE).

8. Except as expressly permitted in the Operating Rules, neither member nor its designated users may reproduce, redistribute, retransmit, publish or otherwise transfer, or commercially exploit, any information, software or other content which they receive through the Service.

9. The provisions of paragraphs 4, 7 and 8 are for the benefit of CompuServe and its respective contractors, information providers, licensors, employees, and agents; and each shall have the right to assert and enforce such provisions directly on its own behalf.

10. Subject to the terms of this Service Agreement, CompuServe grants to member a personal, non-exclusive, nonassignable and nontransferable license to use and display the CompuServe Information Manager software ("Software") on any machine(s) of which member is the primary user. Unauthorized copying of the Software, including software that has been modified, merged or included with the Software, or the written materials associated therewith is expressly forbidden. Member may not sublicense, assign or transfer this license or the Software except as permitted by CompuServe. Any attempt to sublicense, assign or transfer any of the rights, duties or obligations under this license is void.

11. This Service Agreement is made in Ohio, and shall be governed by and construed in accordance with the laws of the United States of America and of the State of Ohio. Any cause of action of member or its designated users with respect to the Service must be instituted within one year after the claim or cause of action has arisen or be barred.

12. If Member's account is a qualified business account and approved by CompuServe for corporate billing, charges for the services provided under this Service Agreement will be accumulated and identified by User ID number and will normally be invoiced following the end of the month in which the service is provided. Terms of payment on all charges are net, ten (10) days in the currency in which billed. If any payment due hereunder is not made by the member within thirty (30) days after the invoice date, late charges of one and one-half percent (1 1/2%) per month shall be due and payable with respect to such payment, and CompuServe may, in addition, at its sole discretion and without notice to the member, (a) suspend its performance under this Service Agreement and the member's and its designated users' access to and use of the Service, or (b) terminate this Service Agreement and member's and its designated users' access to and the use of the Service. For accounts not approved by CompuServe for corporate billing, member must provide payment by credit card or direct debit.

13. Notwithstanding any acknowledgment of a member purchase order by CompuServe, any provision or condition in any purchase order, voucher, or other memorandum of the member which is in any way inconsistent with, or adds to, the provisions of this Service Agreement is null and void. Neither the course of conduct between parties nor trade practice shall act to modify the provisions of this Service Agreement. CompuServe may authorize or allow its contractors and other third parties to provide to CompuServe and/or to member services necessary or related to making the Service available and to perform obligations and exercise rights of CompuServe under this Service Agreement, and may collect payment on their behalf, if applicable. If any provision of this Service Agreement is determined to be invalid, all other provisions shall remain in full force and effect. The provisions of paragraphs 4, 7, 9, and 13 and all obligations of and restrictions on member and its designated users shall survive any termination of this Agreement.

14. Member acknowledges that, when using the Internet, member is using a completely different physical network than CompuServe's communications network and different content than that normally available on the Service. The reliability, availability and performance of resources accessed through the Internet are beyond CompuServe's control and are not in any way warranted or supported by CompuServe or its third party contractors. Member acknowledges that safeguards relative to copyright, ownership, decency, reliability and integrity of content may be entirely lacking with respect to the Internet and content accessible through it. Member assumes all risk and liability of its use of the Internet, including member's continuous compliance with the Service Agreement.

COMPUSERVE INFORMATION SERVICE OPERATING RULES

A. INTRODUCTION

These Operating Rules are provided to help make online information usage and communications a positive and secure experience for members. Members agree during the online sign up procedure to the terms and conditions outlined in these Operating Rules. These Operating Rules are part of the terms of your Service Agreement with CompuServe, and you are bound by them. The definitions used in the Service Agreement will also apply to these Operating Rules. CompuServe may modify these rules at any time by publishing the modified rule(s) over the Service.

B. COMPUSERVE COPYRIGHT

The content on the Service is protected as a collective work under applicable copyright law. The copying, redistribution, or publication by member of any such content or any part of the Service is prohibited, except as expressly provided in these Operating Rules.

Each member who places or has placed information, software or other content in the public areas of the Service grants CompuServe the right to edit, copy, publish, distribute, translate, and otherwise use in connection with its business, such information, software or other content. Subject to this grant, each member who places information, software or other content on the Service retains any rights member may have in such information, software or other content.

C. COPYRIGHTED MATERIAL

Copyrighted material must not be placed on the Service without the permission of the owner(s) or person(s) they specifically authorize. Only the owner(s) or such authorized person(s) may upload copyrighted material to the Service.

Members may download copyrighted material for their own use. Except as expressly provided by copyright law, copying, redistribution, or publication must be with the express permission of CompuServe and the owner(s) or such authorized person(s), if other than CompuServe. Permission must be specified in the document, on the Service, or must be obtained directly from CompuServe and the owner(s) or such authorized persons(s), if other than CompuServe. In any copying, redistribution, or publication of copyrighted material, any changes to or deletion of author attribution or copyright notice are prohibited. Downloaded software may not be reverse engineered unless specifically authorized by the owner of the software's patent and/or copyright.

D. PUBLIC DOMAIN MATERIAL

Any member may upload public domain programs to the Service. Any member may download public domain programs for their own use or non-commercially redistribute a public domain program. Member assumes all risks regarding the determination of whether a program is in the public domain.

E. CONTENT & USES OF THE SERVICE

Member agrees not to publish on or over the Service any information, software or other content which violates or infringes upon the rights of any others or which would be abusive, profane or offensive to an average person, or which, without the approval of CompuServe, contains any advertising, promotion or

solicitation of goods or services for commercial purposes. This paragraph, however, shall not be interpreted to restrict member from utilizing CompuServe mail in the conduct of a legitimate business except that member may not, without the approval of CompuServe, send unsolicited advertising or promotional material.

Member agrees not to use the facilities and capabilities of the Service to conduct any business or activity or solicit the performance of any activity which is prohibited by law or to solicit members to become members of other competitive information services. Member agrees to comply with all applicable laws, rules and regulations in connection with the Service or the Service Agreement.

F. EDITING, DELETING AND MANAGING CONTENT

CompuServe reserves the right in its sole discretion to edit or delete any information, software or other content appearing on the Service, regardless of whether it violates applicable standards for content.

G. SERVICE TERMINATION

CompuServe reserves the right in its sole discretion to suspend or terminate Service to any member at any time.

H. INDEMNIFICATION

Member agrees to indemnify and hold CompuServe harmless from any claims and expenses, including reasonable attorney's fees, related to member's violation of the Service Agreement, including these rules or any information, software or other content placed on the Service by the member.

I. USE OF ACCOUNT

Multiple members of the same household may share a single User ID number account. However, only one person is authorized to access the Service at any given time on one User ID number account.

EXHIBIT C

"Owner-Notification" Proposal to Amend H.R. 2441

DRAFT AMENDMENT TO H.R. 2441, NII Copyright Protection Act of 1995

Title 17 is amended by adding the following new Section:

Section 110A Limitations on Exclusive Rights; Exemption for Service Providers

(a) **IN GENERAL** -- Notwithstanding any inconsistent provisions in Titles 17 and 18 of the United States Code, a Service Provider is not an infringer of copyright, nor an offender under any related law, regulation, or doctrine: (1) unless the Service Provider fails, within a reasonable period of time after receiving actual notice under subsection (c) of material alleged to infringe copyright, to remove, block, or disable access by users to such material residing on a facility, system or network controlled or operated by the Service Provider; or (2) if the Service Provider, with respect to specific material alleged to infringe copyright, solely provides access or connection, including transmission, processing, downloading, intermediate storage, access software, or other related capabilities that are incidental to providing such access or connection, to or from a facility, system, or network not under the Service Provider's control.

(b) **EXCEPTION** -- A Service Provider is not liable for failing to remove, block, or disable access by users to material specified in subsection (a)(1) if the Service Provider does not have the authority to remove, block, or disable access by users to such material, or if taking action to remove, block, or disable access by users to such material is not technically feasible or would materially impair other content, products or services.

(c) **NOTICE OF ALLEGED COPYRIGHT INFRINGEMENT TO BE GIVEN TO SERVICE PROVIDER BY THE COPYRIGHT OWNER** -- For purposes of this section, a Service Provider shall not be deemed to have received actual notice of material alleged to infringe copyright unless the notice:

- (1) is issued by the copyright owner;
- (2) is in writing, certified under penalty of perjury as true and correct;
- (3) states that, on due inquiry, the copyright owner has determined that the material infringes copyright and is believed by the copyright owner to be without a defense;
- (4) requests that the Service Provider remove, block or disable access by users to the material;
- (5) provides proof of copyright ownership;
- (6) with the exception of claims of infringement of copyright in Berne Convention works whose country of origin is not the United States, includes proof of federal registration;
- (7) includes a copy, in pertinent part, of the work allegedly infringed;
- (8) identifies the precise location of the material so that the Service Provider

will be able to locate the material and independently remove it, block it, or disable access to it by users; and

- (9) is sent to the individual identified to the copyright owner as responsible for copyright matters on behalf of the Service Provider in accordance with rules promulgated by the Copyright Office.

(d) **GOOD FAITH ACTION TO DELETE, REMOVE, OR DISABLE ACCESS TO ALLEGEDLY INFRINGING MATERIAL** -- No Service Provider shall be held liable on account of any action taken in good faith to remove, block, or disable access by users to allegedly infringing material residing on a facility, system or network controlled or operated by the Service Provider pursuant to subsection (a). Any such action pursuant to subsection (a), or failure to act pursuant to subsection (b), shall in no way diminish the Service Provider's status as a passive carrier, as defined in Section 111(a)(3), or affect its rights as defined in Section 1114 of Title 15 of the United States Code.

Sec. 2 Transmission of Copies

(a) **DISTRIBUTION** -- Section 106(3) of Title 17, United States Code, is amended by striking "or by rental, lease or lending" in the first sentence and by inserting "by rental, lease or lending, or by transmission."

(b) DEFINITIONS --

(1) Section 1012 of Title 17, United States Code, is amended:

(i) by striking "or rental, lease or lending, or by transmission" in the definition of "publication"; and

(ii) by inserting at the end of the definition of "transmit" the following: "To transmit a reproduction is to initiate the distribution of it by any device or process whereby a copy or phonorecord of the work is fixed beyond the place from which it was sent."

(2) Section 101 of Title 17, United States Code, is amended by adding at the end the following:

"The term 'Service Provider' means any provider of service or transmission capacity, including but not limited to, data, voice, or video, that leases, enables, facilitates, or provides hosting services, or provides, facilitates, or enables access by multiple users to a server, including but not limited to a service, software or system that provides access via a Service Provider's facilities, system, or network. The term 'Service Provider' shall include the employees or agents of the Service Provider, acting within the scope of their employment or agency, and independent contractors."

(c) IMPORTATION - Section 602 of Title 17, United States Code, is amended by inserting "after importation into the United States." the following: "whether by carriage of tangible goods or by transmission."

Mr. MOORHEAD. I will tell you the same thing I did Dr. Pings. If you have some real suggestions, if you give them to us, we will consider them.

Mr. HEATON. I will submit them. And I will add briefly that I think that the key to this issue, and I would encourage all of us interested in this and who are really sincere in finding a fair resolution focus on this, I believe there are three interests that need to be balanced: It is the copyright owner's interests—by the way, CompuServe and other online companies are copyright owners—there is the service providers, the infrastructure itself, the providers. And, third, the issue of who the true infringer is. The people who actually begin the infringement process need to be taken into account in this, and I believe that there has been a lot of talk about the incentive for online service companies to continue to work against copyright infringement.

I believe there is an additional incentive question, and that is, if that shifting were allowed to take place, where will the incentive be to promptly provide technical means for solving this problem? And also where will the incentive be to bring copyright litigation against the infringers themselves so that we can engender this respect for copyright on the information highway that is so widely asked for?

Thank you.

Mr. MOORHEAD. Mr. Purcell.

STATEMENT OF SCOTT PURCELL, PRESIDENT, HLC INTERNET, INC.

Mr. PURCELL. Mr. Chairman, Mrs. Schroeder, Mr. Bono, it is an honor to appear before you today on behalf of the commercial Internet exchanges and the some 200 Internet service providers that we represent, accompanied here by Mr. Robert Cook, president of the Commercial Internet Exchange.

I am not here as a lobbyist. I am not a lawyer, and I am not a politician, at least not yet. I am president of a small business; that is, HLC Internet. We are an Internet service provider on a national basis, with offices in California, in Virginia, and in Seattle.

I started the company in 1994. We had no employees. I had sold my stock in my previous venture that I cofounded, a successful computer company in San Diego, which has gone public. I sold that to start this business with a vision and the opportunity of helping build the next generation of communications facility, which is the Internet, which, in my view, will eventually replace telephony and television.

We now, some year and a half later, have 50 employees and offices in three States. By the end of this year, we expect to have 400 employees in offices in 10 States. So we are growing quite quickly.

Copyright and trademark issues are incredibly important to HLC and to our clients. Our clients include C-SPAN, American Red Cross, Mirage Resorts, guitar centers, radio and records in L.A., and even Rodney Dangerfield. All of these clients as well as ourselves have very deep concern about copyrights and about trademarks.

I am here because Commercial Internet Exchange wants to encourage legislation that really works, legislation that protects copy-

right holders, that encourages competition, that allows room for small businesses to flourish and grow, and does not set tort reform back 5 years by enabling trial attorneys to file actions against people who have no control of any of the events.

One thing I would like to do—and I am going to stand up; my employees always make fun of me because I am always drawing. What is really the Internet? There is confusion about it. I'd like to draw a simple picture, Mr. Chairman, if I may.

Mr. MOORHEAD. Sure.

Mr. PURCELL. The Internet, some part, a lot of people have a misconception what the Internet is, that there is a line that runs across the country, you drill a hole into it, and plug into it, and you are in the Internet. That is not what the Internet is.

What the Internet is, there are companies like HLC. We have a network. We don't have enough money to bury our own cables. We have leased lines all across the United States and in California. We have clients such as radio and recordings. Going a little farther west, we have Mirage Resorts. Coming out to the east coast here, we have C-SPAN and American Red Cross, among others. All of these companies rely on us for their Internet activity.

By running a protocol to the Internet and to the company, all of these people can effectively speak to or communicate with each other, transmit, delete, whether this person is using an Apple, this person is using a PC, a Unix, big Unix computer.

It doesn't matter. This is our private network, and all of these people can communicate with each other on a private network. Other carriers out there or other Internet providers such as Sprint also have a network which they partially own. They have dug some dirt. They own some of the cable, and they also lease from Wiltel and other companies like that. They have customers, ABC and XYZ. They also run TCP/IP across their network. So if ABC wants to talk to XYZ there is no problem.

Like here, if radio and records want to go to C-SPAN or American Red Cross wants to go to Mirage, they have no problem. The problem comes when what happens when a person who has leased a line from one network, ABC, wants to go to radio or records, or somebody from American Red Cross needs to communicate with XYZ? How do they do that? There are places, there are several, but a couple primary ones in the country, called NAP's, network access points, and what happens, the Internet service providers tie into these at very high speed lines, fiber connections, and we agree to pair with each other, or more bluntly put, our private networks come together to exchange traffic and form the Internet work or Internet.

That is what the Internet is. There are a number of companies up here that join their networks in to form the Internet, and they include MCI, PSI, UUNet, ANS, Advantis, and others. Then some companies who are not necessarily Internet service providers, but are on-line providers, and there is a definite difference, such as America Online, they buy access to the Internet through ANS. CompuServe comes in through MCI and Prodigy comes in through Advantis. And this is what the Internet is. It is simply a way for traffic to exchange or data to exchange.

The many components of the Internet that are often talked about are Usenet, which is the publicly available information bulletin board service as well on the Internet, which are discussions of common interests, can post or read messages for each other. This, although lots of people are fixating on it, it is by far one of the smallest parts of the Internet and least consequential.

Far more important are Gopher services and Web services, which are stores of information and documents which can be obtained. Gopher is simply documents in text only format. The Web, I think, everybody is pretty familiar with at this point, is multimedia, very rich. Then, of course, by far the largest part of the Web is e-mail.

So here is the problem, coming back here, by using the word, "transmission," you are making us fodder for lawyers. And I will give you an example of that. Yesterday, Mr. David Ostfeld gave an example of where he called—I believe he called his girlfriend in Philadelphia and read poetry to her over the phone lines. To do that, he picked up his phone and he dialed her in Philadelphia.

Bell Atlantic and perhaps MCI or AT&T transmitted that signal. So the way we understand the bill, the copyright holder for that material should sue Bell Atlantic and MCI. I don't think that is what is intended by the bill, but that is—that is how we are reading it and that is how a lot of other people are reading it.

And something else came up about pirates. Pirates are pretty easy to track. There is a lot of concern about them. We are concerned about them. But in order to conduct business, they need a base of business. If they are going to be actually in the business of being a pirate, they need a dedicated line. To have a dedicated line, they would have to have a circuit installed. Just ask the Internet service provider. They know where that circuit is. We would be more than happy to track that down.

Mr. MOORHEAD. One thing on your comments, the courts have ruled unless the provider already knows what is going to happen and is involved with it and more or less is implicated with it, he can't be held.

Mr. PURCELL. Yes, sir.

Mr. MOORHEAD. So that is not——

Mrs. SCHROEDER. That is really not going to happen.

Mr. MOORHEAD. That is going to happen.

Mr. PURCELL. Let me take it to another step then. American Red Cross hosts something to their Web sight that someone else in the world views as a copyright infringement. So they send us a notice as the Internet service provider, stop transmitting the American Red Cross because they are in violation of a copyright.

Now, of course, how do we be judge and jury over that? I have no idea. So should we shut off the American Red Cross' worldwide Internet communications facility so that that alleged copyright violation doesn't get transmitted? Or are we responsible?

Mr. MOORHEAD. What are they supposed to be—what copyright provisions are they supposed to be violating? You know, it has to be specific—it would have to be specific. And if they specifically knew that something was in violation that the American Red Cross was trying to transmit, then they would be liable.

Mr. PURCELL. Right.

Mr. MOORHEAD. But they could not—they couldn't knock out the American Red Cross.

Mr. PURCELL. Well, the American Red Cross, they post things to their Web site. If they posted something and now it is being transmitted through us to wherever, and we receive notice that that transmission is wrong, the way the bill is written we could be liable for that transmission, because——

Mr. MOORHEAD. If you knew it was wrong; if you knew it was wrong.

Mrs. SCHROEDER. If you knew.

Mr. PURCELL. If we knew it was wrong.

Mr. MOORHEAD. Yes.

Mr. PURCELL. That is the standard. That is the—that is the problem, and it is not written that way. It is not written that if they go to court with American Red Cross and they get an injunction, and we are served with that injunction and therefore we really know it is wrong because it has been determined by a court, then we have no problem shutting that off. If it is that clear, we—that is what we want. We want that kind of clarity. The way it is written right now is that aware of a transmission—yes, ma'am.

Mrs. SCHROEDER. We wouldn't do that to the courts. You are going to have the courts coming in every time with an injunction? That doesn't really——

Mr. PURCELL. If somebody says that the——

Mrs. SCHROEDER. What you are really saying is you do not want copyrights in the way of your business plan.

Mr. PURCELL. No.

Mrs. SCHROEDER. And what we are saying is you have got to find balance. Whether you look at the post office or whether you look at telephone companies or whether you look at anything, when you have got some reasonable notice and so forth, you are supposed to act reasonably. And I am kind of surprised by your position. If you insist that everybody has to go to court, prove their case and get an injunction, we won't—I mean, what it will do to the court system is amazing.

Mr. PURCELL. What I am concerned is that the Internet service provider is liable for someone's infraction.

Mrs. SCHROEDER. Well, if they know, if they know.

Mr. PURCELL. If we know. And how——

Mrs. SCHROEDER. They would be put on notice.

Mr. PURCELL. How would you say that we know?

Mrs. SCHROEDER. Well, I would think—if Mr. Bono found out that somebody had taken his songs and were—and he got ahold of you and said, hey, the XYZ record company is putting all my songs out there, what you are going to say is, well, Mr. Bono, have a nice day, go to court, and let them put it out all over the place. Isn't that what you are saying?

Mr. PURCELL. Let me ask you this. Mr. Bono comes to us about his songs, which I totally agreed need copyright protection in every possible way, and radio and records has put them out on their Web site and people can see them or perhaps they are selling them. He has a major problem with that and comes after us. We shut them off because we say—we agree. This is your copyright or whatever.

Now, radio and records sue us because they come back and they say, no, we do have a right because of a transaction involving an ex-agent from where the rights were distributed 20 years ago. We have the right to resell these. It is a dispute between two parties that we are now in the middle of.

Mrs. SCHROEDER. No. Well—

Mr. MOORHEAD. You would have a very difficult time to find any case anywhere where the transmitting agency, whatever it happened to be, was ever held liable by a court without absolute whole knowledge. I don't think you could find such a case.

Mr. PURCELL. That's—that is the concern, is that the way the legislation looks to us, the way we have read it, it can be putting the small guy in the middle. Copyright protection is incredibly important. We have already been involved in two instances with two of our customers, with Mirage Resorts and with GTE telephone, in helping them overcome some things, some trademark and copyright violations.

But our concern is not that we won't help, and not that we won't respect people's wishes, and not if Mr. Bono comes to us and there is a legitimate copyright problem, we will shut that person off in a heartbeat, but that trial attorneys can have a field day with us, and willingly or wantonly put small businesses out.

Mr. MOORHEAD. The next witness is a trial attorney and he will tell us all about it.

Mr. Cook.

STATEMENT OF WILLIAM J. COOK, ATTORNEY, WILLIAN, BRINKS, HOFER, GILSON & LIONE

Mr. COOK. Thank you.

Mr. Chairman, distinguished members of the committee, thanks for hearing me and giving me this opportunity.

My focus here is the impact of online copyright infringement and the role of Internet service providers in limiting the problem. By considering how copyright law may need to be changed in the fact of the online world, you are out there in front of the technology and we appreciate this concerted effort.

My name is Bill Cook. I have been a practicing attorney in Chicago since 1975; I've tried 89 cases. I work at Willian, Brinks, Hofer, Gilson, & Lione where for 5 years I've litigated patent, trademark, copyright, and trade secret cases. For 16 years before that I was a Federal prosecutor in the U.S. attorney's office in Chicago, where I headed up, for the last 4 years, a computer fraud and abuse task force that dealt with computer intrusion cases.

I have, for the past 10 years, in private practice and in public practice, worked with people that have had their copyrights infringed and copyrights devastated by posting them on the Internet. I have seen face-to-face the sense of violation that copyright holders and engineers feel and face when they see that their product is completely out of their control in a worldwide network.

I have one proposal to make today on their behalf. Specific legislation should be enacted that imposes an affirmative duty on the Internet service providers to remove copyright materials from their networks as soon as they learn specifically what has been posted and the nature of that specific copyright. This law would be in ad-

dition to the current copyright laws, in my view. And I will just make a few points to try and support that position.

The rapid expansion of online copyright infringement on the Internet seriously threatens the underlying value and future of copyrights. We hear often about the "chilling effect" of sanctioning Internet providers. I would now like you to focus on the utter destruction of copyrights by posting them on the Internet.

Improperly posted copyright material has been a part of the computer network since at least 1978. But the networks weren't interconnected then, and the authors could still reach the market with their works in a meaningful way.

But today the Internet connects 49 million people in 96 countries, and this means that the value of intellectual property developed over months or years can be destroyed by worldwide dissemination on the Internet in a matter of days and hours. It happens. So a million dollar computer program released on Monday, improperly obtained by somebody on Tuesday, uploaded to the Internet on Wednesday, becomes shareware by Thursday and freeware by Friday.

The previous 6-month marketing window that programmers were able to use to get their products to market has now shrunk to 4 days. Is this problem likely to change? Yes. It is going to get significantly worse. The sheer size and the 175-percent annual growth rate of the Internet indicate that if steps aren't taken to control online infringement, we will have a serious threat to the continued validity of the copyright laws.

Now, unfortunately, inconsistent case law in the courts is exacerbating the problem rather than giving guidance to any of us: the service providers, the copyright holders and even other courts. Let's back up and take a historical look at the copyright law.

The Copyright Act is a strict liability law. Unauthorized copying, distribution, publication, reproduction, display or performance of a copyright owner's works constitutes infringement.

Congress made it a strict liability law because even innocent infringers deprive authors of their copyrights and because lack of knowledge was too easy to assert as a defense. Intent does factor in. It factors in and before this matter ever goes to court. Innocent infringers exist. Cases against innocent infringers do not work, as they shouldn't work. But the point is that the copyright holder's rights should be preserved during the process.

Courts are now struggling to apply copyright law in the age of the Internet and the case results have been inconsistent. In all these cases the liability of Internet service providers seems to be the most difficult issue for the courts to resolve.

Several courts have held that copyright law subjects service providers, access providers, bulletin board operators to direct, contributory and vicarious liability for copyright infringement. But the Court in *RTC v. NETCOM 3*, which was decided in November 1995, in my view, misapplied the law of copyright infringement by improperly inserting a knowledge requirement.

While the court correctly found a basis for contributory infringement by the service providers in the case, this finding in conjunction with its other rulings in the case involving direct and vicarious liability creates an incorrect impression in the minds of the public

and especially in the minds of the service providers that they are only liable for copyright infringement if they have knowledge.

This holding by the Court gives access providers, in fact, a disincentive to stop online copyright infringement. In other words, if a service provider wants to avoid liability, then ignorance is indeed bliss.

In my opinion, the inconsistency in the cases, and particularly in the misapplication of law in the *NETCOM* case, seriously undermine copyright protection online. But I am not here to argue liability aspects of the *NETCOM* case or any other decision really.

My point today is to urge Congress and to urge this committee to enact appropriate legislation requiring Internet service providers to remove copyrighted material when they receive actual or constructive specific notice that it is online so that the rights of copyright holders aren't destroyed by online infringement before they can ever even consider going to court.

Service providers are uniquely well-equipped, in my view, to perform this function and limit online infringement. They have the ability to dictate the online environment through the use of written control policies and guidelines. They have the ability to place warnings on their networks against improper network traffic and to suspend access to groups providing improper information.

Given their close relationship with their subscribers, they are in the best position to receive notice of specific improper activity in traffic and respond to that in an actual meaningful way. As the report on the information industry task force put it, online service providers have a business relationship with their subscribers, and they, perhaps only they, are in a position to know the identity and activities of their subscribers and to stop unlawful activities.

Most of all, service providers are in a position to quickly and effectively handle objectionable traffic on the network. They can remove infringing material with much greater speed than any court procedure. And the speedy removal is essential protection to the value of copyrighted material which is posted online.

Technological considerations also press for a legislative solution. In this regard, I would suggest and submit that Congress is in a better position than the courts to evaluate the technology here. Courts are, as we know, governed by a case-by-case analysis. Congress is in a position to evaluate what the capabilities are, what the service providers can and what they cannot do. And I urge you to do so.

I believe, finally, that legislation on this issue is really inevitable; if not here, then abroad. If Congress does not take the initiative, the United States may soon find itself following the leads and the laws of other countries. In the meantime, significant damage will have been done to the value of copyrights, to the information superhighway itself perhaps, and to our Nation as a creative competitive force.

As I have already stated, legislation should be enacted that imposes an affirmative duty on Internet service providers to remove copyrighted material from their networks as soon as they learn that it has been posted.

The end result of this will be a reduction of litigation, instead of the expansion of litigation that has been expressed as a concern here this morning.

Thank you for your attention.

[The prepared statement of Mr. Cook follows:]

PREPARED STATEMENT OF WILLIAM J. COOK, ATTORNEY, WILLIAN, BRINK, HOFER,
GILSON & LIONE

Mr. Chairman, Distinguished Members of the Committee,

Thank you for this welcome opportunity to testify on a very important issue: the role of Internet service providers (ISPs) in protecting against online copyright infringement.

Let me laud you for holding these hearings. By considering how copyright law may need to be changed in the face of the online communications revolution, you are at the forefront of technology and the law. You deserve the thanks of a great many people by taking on this daunting, but absolutely necessary, task.

I have been a practicing attorney in Illinois since 1975. Since 1991, I have worked in Chicago with the firm of Willian, Brinks, Hofer, Gilson, Lione, litigating patent, trademark, copyright and trade secret cases. I serve as the Chairman of the Computer Law Section of the National Intellectual Property Institute, the Vice-Chair of the Computer Law Division of the A.B.A. Science & Technology Section (Computer Crime Committee) and the Vice-Chair of the C.B.A. Computer Law Committee. I am also a member of the American Intellectual Property Law Association and the Illinois Intellectual Property Law Association.

Before joining Willian Brinks, I was an Assistant U.S. Attorney for 16 years. From 1987 to 1991, I headed the Justice Department's Computer Fraud and Abuse Task Force in Chicago. I am the co-author of *A Primer on Intellectual Property Rights for Computer Software* and author of the *Federal Prosecutor's and Investigator's Computer and Telecommunication Fraud Investigations Manual*. I have also written numerous articles on computer and network law.

While I will limit my testimony to the issue of online copyright infringement, I note that there are several other intellectual property issues, such as trade secret protection online, that merit the Congress's consideration. I hope that Congress will consider these issues in the near future.

Allow me to begin my testimony with the conclusions I have reached after extensive study and work on this issue.

- Online theft of intellectual property seriously threatens the value of copyrights.
- Current law provides that (ISPs) may be direct, contributory, or vicarious infringers.
- Court cases finding that ISPs cannot be direct or vicarious infringers of

copyright are misapplying current law and creating conflicting results.

- Copyrights need added protection against online infringement through new legislation.
- The entities which may often be in the best position to effectively prevent online copyright infringement are the entities that control and provide access to the Internet.
- Legislation should be passed that explicitly gives ISPs a reasonable duty to help protect against online copyright infringement.

I. Online infringement presents a serious and growing threat to the value of copyrights

Online infringement of copyrights has long been a problem. Computer programs stolen from a network have been the subject of civil and criminal litigation since at least 1978.¹ Until recently, however, the damage done by posting copyright infringing material to various bulletin boards and Usenet groups had a limited impact.

The arrival of the information highway means that the market value of copyrighted works may be destroyed by worldwide dissemination in a matter of days.² For example, while software developers have historically enjoyed a six month marketing "shelf life" for their new products, Internet dissemination creates an environment where a million dollar computer program released on Monday, improperly obtained on Tuesday, and uploaded to the Internet on Wednesday, becomes shareware by Thursday and worthless freeware by Friday. The victim-author-programmer may not even know an infringing copy of her program now resides on a publicly accessible, anonymous file server in France. Nevertheless, her projected six month marketing window has now shrunk to four days, and her incentives to engage in future such

¹ U.S. v. Seidlitz, 589 F.2d 152 (4th Cir. 1978); Technicon Data Systems Corp. v. Curtis 1000, Inc., 224 U.S.P.Q. 288, 292 (Del. Ch. Ct. 1984); Defiance Button v. C&C Metal, 759 F.2d 1053 (2nd Cir. 1985); U.S. v. Shadowhawk, 88 CR 673 (N.D.II. 1988); Telerate Systems v. Caro, 689 F. Supp. 221 (S.D.N.Y. 1988); and S.O.S. Inc. v. Payday, 886 F.2d 1081 (9th Cir. 1989).

² In RTC v. NETCOM 3, 907 F. Supp. 1361, 64 USLW 2370 (N.D. Ca. 11/21/95), the court observed the impact of posting copyrighted material on the Internet. "Netcom's local server makes available its postings to a group of Usenet servers, which do the same for other servers until all Usenet sites worldwide have obtained access to the postings, which takes a matter of hours." *Id.* at 3. (Publication page references were not available for this document as of February 5, 1996).

creative activities may be lost.

While the online piracy of software has been documented in the most detail, online piracy of other forms of intellectual property, such as graphics, digital music, and text, is also prevalent. Anecdotes regarding such piracy abound. The Playboy v. Frena case, documented further below, concerned the online infringement of graphic image copyrights owned by Playboy. The various cases involving the Religious Technology Center (RTC), also explained below, concern the online infringement of copyrights in texts owned by RTC. The Frank Music v. Compuserve case, detailed below, involved the online infringement of copyrighted music.

The above anecdotes and my personal observations online lead me to conclude that these losses may involve staggering sums.³ Moreover, since the underlying principle of copyright protection is to provide an incentive to create new works, loss of control of copyrights as a result of online infringement could significantly discourage the creation of new works.

The sheer size and projected growth of the Internet indicate that online copyright infringement is a growing problem. As of January 24, 1996, the Internet was at least 90,713 combined networks entering 96 countries, with 49 million users worldwide and 40 million in the United States alone. With an annual growth rate of 175%, Internet use is growing at an exponential rate.⁴

The changing nature of Internet users and usage adds to the likelihood that online copyright infringement, if unchecked, will become an even more severe problem. In January, 1992, commercial users made up 12% of the Internet; by January, 1995, they made up 60%.⁵ Citing the Boston-based Yankee Group, *Business Week* reported that more than 21,000 businesses, up from just over 1,000 in 1990, are connected to the Internet. Today, more than 75% of all new users are logging on via corporate connections. This growing commercial usage translates into a growing use of the Internet for the transmission of intellectual property and other proprietary information, and thus increases the potential for online copyright infringement.

The advancing technology of the Internet also contributes to the likelihood that online copyright infringement will increase. For example, in the near future, Internet technology will enable the fast and picture-perfect transmission of digitized feature-length films. Thus, the

³ According to federal law enforcement officials, online thieves steal more than \$10 billion worth of data in the U.S. annually. "Online Theft", *Information Week*, 8/28/95.

⁴ Statistics provided on January 24, 1996 by the Defense Department Internet Center (ASSIST PROJECT). Internet growth is often discussed in terms of "hosts." Each host is a computer traffic center on the network. There were 3.2 million hosts on the worldwide Internet in January 1995. In May 1995, there were 4.8 million hosts. In January 1996, there were 6.6 million hosts worldwide and 4.2 million hosts in the U.S.

⁵ DOD Assist Project.

advancing technology of the Internet will enable the online infringement of a greater range of intellectual property copyrights.

II. ISPs are liable under current law as direct, vicarious and contributory infringers

The Copyright Act is a strict liability law.⁶ Unauthorized copying, distribution, publication, display, or performance of a copyright owner's works constitutes infringement.⁷

ISPs are liable for direct infringement when copying occurs on their systems. The liability for direct infringement arises from the fact that the ISPs set up elaborate computer equipment to perform specific tasks. One of those tasks is to receive, transmit, and store for a varying period of time, depending on the medium, the postings that its customers make. In the process of doing these functions, the ISP through its equipment is making copies of wrongfully posted copyrighted material.

Though liable for direct infringement because of their role in copying material, ISPs may be found innocent infringers, and thus subject to nominal damages, where they had no knowledge of infringement, no intent to infringe, and immediately removed copyright infringing material from their systems upon gaining knowledge.

ISPs are also liable for vicarious infringement due to the infringing activities of their subscribers. Liability for vicarious infringement exists where there is a direct infringer and the defendant (1) has the right and ability to control the infringer's acts and (2) receives a direct financial benefit from the infringement.⁸ An ISP has terms of agreement with its subscribers which give it the right and ability to control illegal activities, such as copyright infringement, by the subscribers. An ISP receives a direct financial benefit from the infringement where the ISP receives payment from the direct infringer or where the ISP attracts more subscribers by being known for having copyright infringing material on its system.⁹

ISPs may be liable for contributory infringement due to the copyright infringing posting of material on their systems. Liability for contributory infringement is established where the defendant, with knowledge of the infringing activity, induces, causes or materially contributes

⁶ 17 U.S.C. 501(a).

⁷ 17 USC 106(1)-(3) & (5) & 17 USC 501(a).

⁸ NETCOM 3, at 9.

⁹ Sega Enterprises, Ltd. v. MAPHIA, 857 F.Supp. 679, 684 (N.D.Cal. 1994).

to the infringing conduct of another.¹⁰

An ISP may derive knowledge of infringing activities on its system through several avenues, such as notification by the copyright owner or a third party. An ISP with knowledge of infringement induces, causes, or materially contributes to the infringement where the ISP fails to take simple measures to prevent further damage to the copyrighted works.

Several courts have held that the Copyright Act subjects ISPs to direct and contributory liability for copyright infringement.

The Playboy Opinion

In Playboy v. Frena, 839 F. Supp. 1552 (M.D. Fl. 1993), a subscriber of the defendant's BBS had uploaded onto the BBS files containing digitized pictures copied from the plaintiff's copyrighted magazine, which files remained on the BBS for other subscribers to download. The defendant, Frena, maintained that he never uploaded any of the Playboy photographs onto the BBS and that he had removed the photographs and kept additional photographs from being uploaded once he was put on notice of the problem by Playboy. Declaring that "intent or knowledge is not an element of infringement", the court held that Frena and his BBS had directly infringed Playboy's display and distribution rights in its copyrighted photographs, though it did not conclude that the BBS was liable for the unauthorized reproduction of plaintiff's work.

The Sega Opinion

In Sega Enterprises Ltd. v. Maphia, 857 F. Supp. 679 (N.D. Ca. 1994), the defendant allowed and solicited users of his BBS to upload copies of plaintiff Sega's video game programs onto his BBS. Id. at 683. The defendant restricted the right to download the game programs to those who paid a fee or to those purchasing the defendant's hardware device that allowed Sega video game cartridges to be copied. Id. at 683-4.

The Sega court issued a T.R.O. and preliminary injunction against a BBS operator and his BBS, finding that plaintiffs had established a prima facie case of direct and contributory infringement. Id. at 687. The court found that the defendant's knowledge of the infringing activities, encouragement, direction and provision of the facilities through his operation of the BBS constituted contributory infringement, even though the defendant did not know exactly when files were uploaded or downloaded. Id. at 686-87. The court observed,

Even if defendants do not know exactly when games will be uploaded to or downloaded from the MAPHIA bulletin board, their role in the copying, including provision of facilities, direction, knowledge and encouragement, amounts to contributory copyright infringement. (Citing Playboy v. Frena, 839 F. Supp. 1552 (M.D. Fl. 1993)).

¹⁰ NETCOM 3, at 7.

857 F. Supp. at 686-687.¹¹

III. The court in RTC v. NETCOM 3 misapplied current law with regard to ISP liability.

A recent decision in a case brought by Religious Technology Center (RTC) stands in direct conflict with the Playboy and Sega cases on the issue of ISP liability for direct infringement. See RTC v. NETCOM 3, __ F. Supp. __, 1995 WL 707167 (N.D.Ca. 11/21/95).¹² The decision also incorrectly applied the law regarding vicarious liability, as underscored by the January 25, 1996, decision in Fonovisa, Inc. v. Cherry Auction, Inc., 1996 WL 26912 (9th Cir. 1996). Finally, while the NETCOM 3 court reached the correct conclusion regarding contributory infringement, this holding, when combined with the holdings regarding direct and vicarious liability, encourages ISPs to allow copyright infringement on their systems.

RTC is the exclusive licensee to certain unpublished copyrighted works. RTC and its licensees maintain extensive security over these materials, which are central to the advanced spiritual development of Church of Scientology members.

When RTC discovered some of its materials being posted in text file format on the Internet in late 1994 and 1995, it brought three lawsuits against the posters of the materials. In two of the cases, NETCOM 3 and one other, RTC also included the ISPs as defendants after they refused to assist in stopping the infringements.

The NETCOM 3 judge entered a preliminary injunction that prohibited the continued posting of the text files by the defendant who made the postings. The court found that the defendant's posting of significant sections of copyrighted RTC materials on the Internet likely constituted an infringement of copyright and precluded a finding of "fair use." RTC v. Netcom 2, 1995 U.S. Dist. LEXIS 16184, pp. 13-15 (N.D.Ca. 9/22/95).

Netcom moved for summary judgement, and the BBS operator for dismissal, arguing that they could not be held liable under principles of direct, contributory, or vicarious liability. The NETCOM 3 court partially granted the motion for summary judgement, ruling that neither the service provider nor the BBS could be directly or vicariously liable for copyright infringement. RTC v. NETCOM 3, __ F. Supp. __, 1995 WL 707167 (N.D.Ca. 11/21/95) at

¹¹ Internet posted computer programs were also at issue in California Dreamin' BBS et al. On October 5, 1993, WordPerfect announced that it had reached a civil settlement with a Texas company that did its beta testing and with a Toronto BBS known as "California Dreamin'." WordPerfect stated it had observed new WordPerfect products on the Toronto BBS and had conducted an investigation to determine which of its beta test companies were releasing the information. WordPerfect Information Release, 10/5/93.

¹² Publication page references were not available for this document as of February 5, 1996.

14.

In finding that ISPs could not be vicariously liable, the Netcom court relied on the recently reversed Fonovisa decision. In fact, the 9th Circuit's opinion in reversing Fonovisa now provides support for finding ISPs vicariously liable.

In ruling that ISPs could not be liable for direct infringement, the court directly contradicted the decisions in Playboy and Sega. The Netcom court stated:

To the extent that Sega holds that BBS operators are directly liable for copyright infringement when users upload infringing works to their systems, this court respectfully disagrees with the court's holding.

Id. at 12.

In partially denying summary judgement, the NETCOM 3 court ruled that RTC's contributory infringement claims against Netcom and the BBS could go forward. Though correct in itself, the NETCOM 3 court's ruling on contributory infringement, when taken in conjunction with the court's rulings on direct and vicarious liability, gives ISPs a disincentive to stop online copyright infringement.

Since under the NETCOM 3 analysis ISPs can only be liable for contributory infringement, ISPs will only be liable for online copyright infringement if they have knowledge of infringing activities. Therefore, ISPs will have an incentive to be without knowledge of online copyright infringement. In other words, if ISPs want to avoid liability for copyright infringement, then ignorance is indeed bliss.

It can be seen, then, that while existing law does and should provide a basis for application of the same rules to online copyright infringements, unique attributes of this new medium and arguments being made by ISPs are resulting in inconsistent decisions. In my opinion, the inconsistency, and particularly the departure from standards which do not require knowledge, will seriously weaken copyright protection online.

IV. Congress should enact legislation that provides additional protection to copyrights online

I believe that specific legislation should be enacted both to minimize the potential for continuing inconsistent rulings and to more effectively protect copyrights online. To achieve these goals, the legislation should require that ISPs remove copyright infringing materials from their systems.

I believe legislation on this issue is inevitable, if not here, then abroad. Use of the

Internet is widespread and rapidly growing in many other nations.¹³ Some of these countries are now becoming part of the Internet and are taking actions and considering legislation that will have a direct impact on the way U.S. companies operate on the Internet. For example, Germany is currently studying the liability of ISPs for both pornography and hate speech online.¹⁴ Based on a warning from the German government, CompuServe has already limited access to several hundred newsgroups in order to avoid liability in Germany for providing access to pornography.¹⁵ It is just a short leap until Germany and other countries consider legislation delineating the liability of ISPs, including American companies, for online copyright infringement. Some of this foreign legislation may have a distinct chilling effect on the Internet

¹³ According to J.P. Morgan, Internet growth in the European Community is two to three years behind the United States due to failure of European countries to privatize their telecommunications infrastructure, lagging market receptivity and product initiatives. They noted that personal computer penetration by percentage of population was 34% in the U.S., compared to 22% in England and the European average of 10%. However, recent initiatives can be expected to close this gap between the United States and Europe and Japan. On August 24, 1995, Microsoft Network went online with Internet access in 51 different countries at the same time. America Online anticipated that it would be established in Europe and Japan by the end of 1995.

¹⁴ The Mannheim, Germany, prosecutor's office has launched an investigation of CompuServe and Deutsche Telekom's T-Online service for inciting racial hatred, a crime in Germany. At issue is online access to a Web site run by a neo-Nazi extremist in Canada who uses the Internet to distribute anti-Semitic propaganda. The legal reasoning, according to a prosecutor's office spokesman, is that "because it's available over the Internet, it also can be called up in Germany. Then the scene of the crime is all Germany." Although the investigation is now limited to CompuServe and T-Online, there are also several hundred small companies that provide Internet access in Germany. *Wall Street Journal*, January 26, 1996.

¹⁵ On December 29, 1995, the New York Times reported that CompuServe Inc., at the request of the German government, had blocked access by its subscribers in the United States and around the world to more than 200 sexually explicit computer discussion groups and picture data bases while a federal prosecutor in Munich determined whether the material violated German pornography laws. The German government's action, in which German law is determining what material Americans cannot see, was immediately characterized as censorship by the New York Times and criticized by the Electronic Frontier Foundation.

CompuServe stated that they had to block all subscribers' access to the Internet material in question because they did not yet have the technology to tailor CompuServe's online content to a single country. A type of software filter that would let parents and other individual users screen access to material they might find offensive is supposed to become available on CompuServe in January 1996.

in the absence of guidance from Congress.¹⁶ Therefore, while Congress is now in a position to determine the future of intellectual property on the Internet, as suggested by the head of the World Intellectual Property Organization,¹⁷ Congress may soon find itself following the lead of other countries.

Technological considerations also militate for a legislative solution. Determining which types of ISPs should be liable in which situations for copyright infringement requires a degree of technological sophistication that even the federal courts do not have. To date, the courts still have not differentiated between ISPs, BBS operators, and Web page operators. However, Congress, with almost unlimited access to technology experts and the time to extensively study the issues, is well-equipped to craft a technologically sophisticated solution for the online world.

A legislative solution is also needed because, without the enactment of coherent law that more effectively protects copyright online and results in consistent application of the law, actions by intellectual property holders to secure their copyrights will continue to be inadequate in the face of the ever more effective hostile technology in the hands of computer hackers and copyright anarchists.

V. Legislation should not replace any other liability for copyright infringement that ISPs may have under current law

I believe that legislation should be in addition to, not in lieu of, any liability that ISPs may currently have for on-line copyright infringement. Curing the problem identified in the Netcom case will not, in and of itself, effectively protect copyrights against online infringement. Such legislation should have the limited purpose of clarifying and reinforcing existing copyright protections.

VI. Suggested elements of legislation that would clarify the liability of ISPs for online copyright infringement

Having suggested that a legislative solution is appropriate and necessary, I am hard pressed to suggest exactly how that legislation should be structured. Despite my hesitancy, I hazard the following suggestions as to the elements of such legislation.

¹⁶ China has temporarily suspended new Internet memberships in order to develop new Internet controls to establish a centrally administered Internet backbone that allows more oversight of e-mail and other activities on the network. *Wall Street Journal* 1/31/96.

¹⁷ 51 PCTJ 102.

- (A) Any legislation should give at least some types of ISPs a duty to remove infringing copyrighted material from their systems.

- (1) ISPs are the logical party to which to give a duty to remove infringing copyrighted material because they are so well-positioned

ISPs and access providers are uniquely well-positioned to stop the loss of intellectual property rights on the Internet. The Report of the Working Group on Intellectual Property Rights (White Paper) supports this assertion, stating:

"On-line service providers have a business relationship with their subscribers. They -- and, perhaps, only they -- are in the position to know the identity and activities of their subscribers and to stop unlawful activities."

White Paper, at p. 117.

ISPs have the ability to dictate the online environment through the use of written control policies and guidelines. They are able to ensure that these are in place and followed.¹⁸ They have the ability to place warnings on their networks against the posting of copyright infringing material and suspend access to groups or persons that persistently infringe copyrights.¹⁹ ISPs can utilize and implement technology, including software, that is capable of automatically screening material posted on the network.²⁰

Given their close relationship with their subscribers, ISPs are in the best position to receive notice of specific improper traffic and receive information with respect to specific problems in various user groups.²¹ They are in a position to quickly and effectively handle

¹⁸ NETCOM 3, at 3, 9; RTC v. FACTNET 1, 901 F. Supp. at 1521; Stratton Oakmont v. PRODIGY, 1995 WL 323710, at 3 & 4. See also "MCI Gets Tough on Spamming", Business Daily, 1/25/96.

¹⁹ NETCOM 3 at 9; Sega at 687 (improper postings encouraged by provider). CompuServe Press Release, December 28, 1995 (access to 200 newsgroups suspended in Germany).

²⁰ NETCOM 3 at 3, 9-10; Stratton Oakmont at 3 & 4; Cubby v. Compuserve, 776 F. Supp 135, 140 (S.D.N.Y. 1991).

²¹ NETCOM 3 at 3, 7-9; Cubby at 137, 141. See also the Bitnet letter attached.

objectionable traffic, whether it is patently improper, such as third party credit card numbers, or whether its impropriety is latent in nature.²² ISPs are also in a position to hire intermediate editorial groups responsible for reviewing network traffic and enforcing network policies.²³

Many ISPs are already promulgating and enforcing rules of usage by their customers and have suspended accounts in thousands of instances where abusive use has occurred. Some ISPs have begun monitoring the activities of their subscribers, recognizing the marketing significance of tracking subscriber online activity.

Therefore, ISPs have both the ability and a history of controlling certain kinds of subscriber activity. Because they are so well-positioned, ISPs are the logical party on which to place a duty to remove infringing materials on-line.

- (2) **ISPs, rather than the courts, should be given the duty to take offline infringing copyrighted material because ISPs provide a better first line of defense against copyright infringement than do the courts.**

Considering the speed with which online infringement can utterly destroy the value of a copyright, courts are institutionally ill-equipped to prevent online copyright infringement with the required alacrity. Even the speediest court procedures, such as temporary restraining orders and preliminary injunctions, require the intervention of a middleman - the court - between the service provider and the copyright owner. Therefore, court procedures are not sufficiently immediate to prevent substantial damage from online copyright infringement. Furthermore, even where a TRO is obtained, courts are so sensitive to even poorly founded First Amendment claims that they sometimes improperly conduct the weighing analysis required for preliminary hearings.

The institutional limitations of the courts indicate that they may be a poor first line of defense against online copyright infringement. Therefore, the duty to remove infringing copyrighted material is better given to the ISPs, who, as demonstrated above, are quite well-equipped to handle this duty.

- (3) **There is good precedent for the government finding that ISPs should have a duty to prevent online illegal activities, such as copyright infringement**

Congress would not be without precedent if it gave ISPs some level of responsibility for preventing online copyright infringement. The recently passed telecommunications bill would

²² NETCOM 3 at 7-9; FACTNET 1, 901 F. Supp. at 1526; Playboy at 1556; Sega at 683-4; Cubby at 141. See also Tamburo v. Calvin, 1995 WL 121539 (N.D.II. 1995).

²³ NETCOM 3 at 3; Stratton Oakmont at 3 & 5; Cubby at 137, 140.

make ISPs criminally liable for providing access to online pornography. Giving ISPs a measure of responsibility for preventing online copyright infringement is far less burdensome and intrusive than making ISPs criminally liable for online pornography.

Further precedent comes from another branch of the government. In 1990, the Commerce Department issued a letter to the administrators of the BITNET, an earlier form of the Internet. The Commerce Department concluded that ISPs were more like publishers than distributors based upon their relationship to their users, their ability to exercise editorial control, their ability to set and enforce guidelines, and their ability to respond to information provided by subscribers. Based on its findings, the Commerce Department expressed the view that ISPs may be liable for online violations of the export laws.²⁴

- (4) **It is equitable to give ISPs a duty to remove infringing copyrighted material**

Giving ISPs an explicit duty to remove infringing material from their systems would give them a greater responsibility for preventing copyright infringement than they currently have. However, I believe such an increased burden is equitable if the Internet is to remain an essentially unregulated environment. For ISPs, who run a billion dollar industry, to reap the substantial rewards of operating in an unregulated field, they should accept the responsibility to self-regulate to ensure that there is no wholesale violation of property rights online.

- (5) **Such a duty should not relieve ISPs of existing liability for copyright infringement**

The creation of this duty should not be used to weaken the protection of copyrights overall. ISPs should still face the full range of liability for copyright infringement, whether contributory, direct or vicarious, that they face under correctly applied current law. Furthermore, the proposed duty should not change the fact that ISPs are liable for copyright infringement when they have actual knowledge of infringing material on their systems, even if that knowledge is derived from sources other than the copyright owner.

- (B) **The duty given to ISPs should, at the least, require that ISPs remove copyright infringing material from their systems when they have notice that such materials are on their systems**

Having proposed that ISPs be given a duty to prevent online copyright infringement on their networks, the issue then becomes the exact nature of the duty.

- (1) **The duty should be mandatory, not voluntary.**

²⁴ A copy of the Bitnet letter is attached.

Such self-regulation should be not be voluntary, but should be mandated through legislation. A voluntary duty would not provide sufficient protection to copyrights. While major ISPs would most likely shoulder a voluntary duty, the smaller ISPs would have a direct incentive to ignore a voluntary duty. These smaller ISPs can more effectively compete with the bigger ISPs by giving their subscribers access to content not available on the bigger systems. Therefore, as happened in the *Sega* case, many smaller ISPs will not act to remove copyright infringing material from their systems.

The likely compliance of only the major ISPs with a voluntary duty will not provide any protection to copyrights. If copyright infringing material is available anywhere online, it can be disseminated worldwide in a matter of minutes.

There is good precedent for making any duty on ISPs mandatory. As the White Paper itself concludes,

"It would be unfair -- and set a dangerous precedent -- to allow one class of distributors to self-determine their liability by refusing to take responsibility. This would encourage intentional and willful ignorance." (p. 122)

(2) A reasonable duty would, at the least, require the ISPs to remove infringing copyrighted material from their systems when they have received notice that such material is on their system.

A duty to remove materials upon notice from copyright owners that such material infringes a copyright seems entirely reasonable. Besides being eminently reasonable, a duty to remove material upon notice that such material infringes a copyright has many advantages. Such a duty:

- Does not give ISPs the duty to monitor all online communications for copyright infringement, and therefore does not require ISPs to do the impossible.
- Does not require ISPs to violate the Electronic Communications Privacy Act by monitoring their postings or e-mail.
- Evenly distributes the burden of the duty by involving copyright owners in providing notice that copyright infringing material is on the system.
- Provides for direct action between the service provider and the copyright owner, and therefore will significantly speed up the process of removing infringing material.
- Has explicit support from the White Paper, which stated that

"Service providers should have incentive to...react promptly and appropriately to notice by copyright owner that infringing material is available on their systems."

(p. 124)

(3) This duty to remove upon notice should involve sanctions for failure to comply with the duty

A duty to remove infringing materials upon notice will not be effective unless there are sanctions for noncompliance. Therefore, any legislation creating such a duty must also create sanctions for noncompliance.

(4) Arguments against imposing such a duty on ISPs are not compelling

Some ISPs have argued that copyright holders are obligated to secure their intellectual property. However, it is far more difficult for copyright owners to secure their intellectual property in the online environment than in traditional media. Copyright owners have no right, and little ability, to remove copyright infringing material from an ISP's system. Furthermore, computer hackers have been able to break into virtually all corporate and government networks by using intrusion technology like spoofers,²⁵ sniffers,²⁶ satan utilities,²⁷ trojan horses,²⁸

²⁵ Professor Eugene Spafford of Purdue University, a forensic computer code expert, explains "spoofing" or "IP spoofing" as follows: IP (Internet Protocol) is the standard protocol for connections on the Internet. This involves sending messages as a set of individual "packets," each with a source address and a destination address. The packets are assembled into messages that are then acted upon. A sequence number is in each packet to help identify when a packet needs to be resent, or is received multiple times.

Most programs that involve a long-term connection set up permissions and initialization when connections first occur. Thereafter, any packets arriving with the correct source and destination address, sequence number, and other per-session values are assumed to be part of the on-going connection, and are processed accordingly.

"IP spoofing" involves an attacker determining the likely values for the sequence number and other information, and then forging a series of packets that appear to be from the legitimate source of the connection. The processing host is fooled if the values are correct, and uses the packets in its connection. The result is that the person doing the "spoofing" can introduce arbitrary commands and data into the session. Under some conditions, they can actually "hijack" the connection and take over control of the session -- leaving the original source computer with no connection (because it no longer has the correct sequence numbers -- they have changed as a result of the hijacking). Spafford e-mail of December 12, 1995.

²⁶ Sniffers are packet-capturing programs installed on the Internet. They examine captured packets to obtain login name-password combinations for remote login sessions. This information

back doors,²⁹ e-mail protocol attacks,³⁰ and network file system attacks.³¹ Copyright owners should not be penalized for the advent of new technology which permits greater unauthorized distribution of copyrighted material while restricting their ability to secure the material. Rather, where reasonable, ISPs should have a measure of responsibility for removing copyright infringing material.

Some ISPs also argue that they are entitled to common carrier status. ISPs are not similar to common carriers, however, and should not be exempted from the proposed duty. Congress has never provided ISPs with the protection of a common carrier exemption, nor should it. Giving ISPs a common carrier exemption would be the equivalent of allowing them to have their cake and eat it too. Common carriers in other fields, such as phone companies, have exemptions from certain types of liability because they also are extremely tightly regulated and have a host of legal duties. The rates they may charge are regulated, they generally are not allowed to deny access to anyone, and they have to comply with voluminous regulations regarding the conduct of their business.

is then used to log into the hosts across the network for which the packets were destined. "Internet Sniffer Attacks," Eugene Schultz and Thomas A. Longstaff, 18th NISS Conf. Proceedings, Oct. 10-13, 1995, p. 535. Sniffer attacks involve scanning for reusable passwords, gaining root access to a network system, and replacing detection tools with Trojan horse utilities. CERT, November, 1995.

²⁷ Satan is a widely available Unix computer security tool that can scan a network environment looking for 13 known TCP/IP vulnerabilities. Difficulty develops when system administrators rely on the results of the Satan examination and fail to respond to new vulnerabilities in TCP/IP being trafficked in the computer underground.

²⁸ A Trojan horse is a program that disguises its harmful intent by purporting to accomplish some harmless and possibly useful function. For example, a trojan horse program could be advertised as a calculator, but it may actually perform some other function when executed such as modifying files or security mechanisms. A computer virus could be one form a trojan horse. John Wack, NIST, September 22, 1989.

²⁹ Back doors are entry points to a program or system that are hidden or disguised. They are often created by the software's author for maintenance or other convenience reasons. For example, an operating system's password mechanism may contain a back door such that a certain sequence of control characters may permit access to the system manager account. Once a back door becomes known, it can be used by unauthorized users or malicious software to gain entry and cause damage. John Wack, NIST, September 22, 1989.

³⁰ CERT, November, 1995 and DOD Assist Project.

³¹ CERT, November, 1995 and DOD Assist Project.

If ISPs want the benefits of a common carrier exemption, they must accept the tight regulation that accompanies it. However, tight regulation coupled with exemption from liability is not what the ISPs propose when they clamor for a common carrier exemption. The last thing the ISPs want is to become tightly regulated entities, with the government dictating their fees and terms of agreement. Instead, they ask for the benefits of a common carrier exemption, but want to avoid the responsibilities and burdens that generally come with common carrier status.

If they are to remain almost totally unregulated, I believe it is only right that ISPs be given a legal duty to self-regulate, at least to the extent involved by the proposed duty.

Some ISPs have argued that the First Amendment rights of subscribers would be violated by full enforcement of copyright law online. The enforcement of copyright law online through the imposition of an affirmative duty to remove copyright infringing material is no more a violation of free speech than are attempts to enforce copyright law in any other media. By definition, copyright law always gives one individual an exclusive right to express ideas in a certain way, and therefore restricts the ability of all others to use the same expression.

Furthermore, First Amendment concerns are addressed in the copyright law by the assurance of a fair use defense against claims of infringement. Case law has recognized that to the extent that First Amendment rights outweigh any exclusive rights granted by the Copyright Act, the protections afforded by the fair use defense are adequate.

VII. Conclusion

In conclusion, I wish to state my firm belief that the creation of such a reasonable duty will more effectively prevent online copyright infringement than current law in at least those narrow circumstances in which the copyright owner is aware of the infringing material and gives notice to the ISP. Surely, those whose intellectual talent has made this nation the world's creative leader deserve no less.

I do not suggest that the creation of a duty similar to that proposed in this testimony will provide a panacea to the problem of online copyright infringement. Rather, I see the proposed duty as one of the most obvious ways to improve copyright protection online. Other mechanisms, whether legislative, technological, or enforcement-oriented, are needed to more completely protect copyrights against on-line infringement.

Mr. MOORHEAD. Ms. Simmons-Gills.

**STATEMENT OF CATHERINE SIMMONS-GILL, PRESIDENT,
INTERNATIONAL TRADEMARK ASSOCIATION, AND GENERAL
COUNSEL, GENERAL MEDIA INTERNATIONAL, INC.**

Ms. SIMMONS-GILL. Thank you, Chairman Moorhead, and members of the panel. I am here today to speak on a topic that no one else has spoken of, I think, in the past couple of days and that is the issue of domain names and trademarks on the Internet. But before I do that, I would like to thank the chairman and you, Mrs. Schroeder, for your help in the passing of the—and the recent enactment of the trademark dilution statute, which became law on January 16. We are very grateful for your assistance in that regard.

My principal message to the panel today is that the current policies associated with the registering of domain names, sort of like a post office address on the Internet, are in need of some serious attention by all the constituent communities that deal with them. I think we have had some very helpful description of the mechanics of the Internet. I would like to speak just a little bit about the history of the Internet, which began as a means of communication that was safe from various intrusions between the Department of Defense, its contractors, and then later think tank scientists and universities.

Of course, over the past 5 years, it has become much more commercialized than that, and involves many, many hundreds of thousands of providers. Each of these providers has an address, which is a numeric address, and in addition, they have a gnomonic device or a domain name which is the way you get to that person, and addresses which are numbers are matched up with names.

Prior to 1993, the total number of names issued in a year was approximately 10,000. Now, even though the process is painstakingly slow, they are issuing 13,000 a month. So many, many names are being issued.

The problem is that names are issued randomly more or less on a first come, first served basis and you get the name that you ask for unless someone else has an identical name on the Internet. This has led to a variety of instances of confusion when names such as Avon or McDonald's are issued to parties that are unrelated to the entities best known by the most members—most members of the public as Avon or McDonald's.

The *McDonald's* case is sort of interesting. A *Newsday* reporter called McDonald's and found out, in fact, that they had not applied for a domain name involving McDonald's, and he applied for and obtained the name `ronald@mcdonalds.com`. There was then a reasonably friendly discussion between this reporter, who was doing it for reporting purposes, and in return for a substantial donation to a New York City school McDonald's got its name back.

This was done to prove a point, but many of these names are obtained to prove other points. Specifically, a case was recently filed by Avon against an individual in New York who indicated that she had intentionally acquired the name Avon in order to get Avon to pay her a sum of money to obtain its own name on the Internet.

And some of them are just, quite frankly—there are people whose surname is McDonald's or Sears or whatever, and they applied for and obtained their own name.

So there—we have the Internet name provision system, which is flat first come, first served. And then you have the whole world of trademark law, which is global, horizontal in some ways but vertical in others. There is Acme—there may be Acme for paints and Acme for food. There is Cadillac electronics, Cadillac for automotive—for cars, and Cadillac for other products as well.

We certainly understand why this situation came to be and we believe it needs to be addressed. Domain names are issued by NSI. We have handed out a chart. This chart was actually put out by RIPE-NCC. RIPE-NCC is one of the creators of Internet names in Europe, actually. We have marked in blue who we know—what we know what they are. And we do know some of the purples. We have no idea who WWW Society is, but we guess that it is the World Wide Web Society.

All of these groups are the groups that together provide the Internet for all of our use. And they are doing a good job, and they have done a good job, but it is on an ad hoc voluntary basis.

Limiting myself to the issue of domain names and trademark infringement, when this problem was brought to the attention of NSI, who issues names, they undertook to provide a policy which was amended once last year. It was provided last year and amended once. And basically, they have—the policy says that if someone gets a domain name and the owner of the trademark is able to provide NSI with a trademark registration certificate, showing first use for exactly the same name prior to that time, then they will ask the person issued the name to stop using it. And if he or she won't stop using it voluntarily, they will suspend, send the thing to arbitration in California and at the end of the arbitration issue the name to whoever it is that has prevailed in the arbitration.

In the 9 months we do not know of a single situation that has been resolved in this fashion. Some have been resolved in the sort of Newsday way, where they came to—others have been negotiated in other ways and there are a couple of cases pending. Meanwhile, of course, many more names are being issued.

What is our suggestion under these circumstances? Our suggestion under these circumstances is, first of all, that the committee understand, of course, that—the subcommittee understand that the Internet is global. It is absolutely guarded and maintained by a group of engineers who have done an extraordinarily good job and who are very concerned about being overregulated and over legislated, but to whom we are indebted and who we will need to count on to fix problems.

So we would like to recommend specifically that this committee or Congress urge that a group be created composed of engineers that are actively involved and well-respected in the Internet and there are several—there are many of these; of trademark owners and businesses that are involved in this commercial aspect; of some people or one or two members that just use the net so they would be consumers and would understand the issues of the public being confused by this proliferation of names, and finally of groups that are specifically interested in trademarks, like the International

Trademark Association, or WIPO, who would within 6 to 10 months come up with some solution for the issuance of domain names that addresses, insofar as possible, on a reasonable basis and a global basis and an engineeringly sound basis the problem of domain names.

It is not only a U.S. problem, although most of the traffic for the Internet does go through the United States and most people, although not all, are obtaining names through U.S.—through the U.S. entity NSI. We do think that this can be addressed at the urging of this committee and of Congress.

Thank you.

[The prepared statement of Ms. Simmons-Gill follows:]

PREPARED STATEMENT OF CATHERINE SIMMONS-GILL, PRESIDENT, INTERNATIONAL
TRADEMARK ASSOCIATION, AND GENERAL COUNSEL, GENERAL MEDIA INTER-
NATIONAL, INC.

Mr. Chairman, the International Trademark Association (INTA) (formerly known as the United States Trademark Association) appreciates the opportunity to testify today in connection with the Subcommittee's consideration of H.R. 2441, the "NII Copyright Protection Act of 1995." Our remarks will focus on the current status of trademark-related problems involving Internet domain names.

My name is Catherine Simmons-Gill, and I presently serve, on a voluntary basis, as president of INTA. INTA is a 118-year old, not-for-profit membership organization. Since its founding in 1878, its membership has grown from twelve New York-based manufacturers to approximately 3,100 members that are drawn from across the U.S. and from 115 countries.

Membership in INTA is open to trademark owners and to those who serve trademark owners. Its members are corporations, advertising agencies, professional and trade associations and law firms. INTA's membership is diverse: it crosses all industry lines, spanning a broad range of manufacturing, retail and service operations. All of INTA's members share, however, a common interest in trademarks and a recognition of the importance of trademarks to their owners and to the general public.

INTA is extremely interested in seeing that the United States maintains its worldwide leadership role in ensuring that trademarks and trademark protection are recognized as essential elements of a free and open global economy. Toward that end, INTA actively assisted Congress's landmark overhaul of federal trademark legislation in 1988 and its recent passage of a federal trademark dilution bill several weeks ago. INTA wishes to express its appreciation to you, Mr. Chairman, as well as to Congresswoman Schroeder and the other members of this panel, for your help in securing enactment of a federal dilution statute.

Trademarks on the Internet

The Internet was established about twenty-five (25) years ago in the U.S. as part of a Defense Department project to produce a distributed communications systems that could withstand a nuclear attack. Today, the Internet is a global communication system serving governments, schools, and businesses. Millions of persons communicate daily across the Net, sending E-mail, documents, pictures, etc. Companies have established Web pages (also referred to as Home pages) wherein their customers, or potential customers, can find out about products or services marketed by the company and may even place orders for goods or services. The Internet has truly become a new channel of commerce.

Users of the Internet require addresses for purposes of sending and receiving mail or visiting a Web page. There are two components of an address: an actual address consisting of numbers and a domain name, such as INTA.ORG or HARVARD.EDU. The Internet Assigned Numbers Authority (IANA) is the overall authority for Internet addresses and domain names. IANA has assigned its authority to issue domain names to the InterNic (Internet Network Information Center), which has contracted with Network Solution, Inc. (NSI) in Virginia for the processing of domain name

applications. NSI obtains funding from the National Science Foundation (NSF) and from domain name registration fees. NSI issues domain names on a "first come-first served" (first to apply) basis.

As noted in the October 2, 1995, edition of The Wall Street Journal, reporting on the acquisition of NSI by Science Applications International Corp., domain names "are potentially of immense value as the Internet becomes a fundamental part of the American - and world - economy." The business world agrees with this assessment. The rush to acquire domain names that incorporate trademarks, product names or market segments is ample evidence that business users are concerned with the market value of domain names.

However, many of the "stakeholders" in the Internet and, in particular, many of the government and academic users do not necessarily see eye to eye with the business community. Probably the only area of real agreement among all users is that the present system needs to be overhauled.

The current system for registering domain names is widely recognized to be inadequate for the needs of the Internet, even without considering the issues raised by conflicts over trademarks. A number of key figures in the Internet community have proposed new protocols for the assignment of domain names that would address such problems as the impending shortage of names for Internet users, and the need for a financially self-supporting system. Most of these proposals recognize that interests outside the original Internet community (such as trademark owners) have claimed a place in the system. It is now clear that the Internet can no longer be managed as an academic, government and military network system which merely tolerates commercial and private user interests.

NSI's "first to apply" system for the awarding of domain names has given rise to a number of trademark-related problems. The first publicly

identified trademark problem involved McDonald's Corporation. A reporter for Newsday telephoned McDonald's corporate headquarters and found that the company had not registered "mcdonalds.com". He then registered that name, identified himself as "ronald@mcdonalds.com" and wrote a tongue-in-cheek article in WIRED Magazine. McDonald's Corp. was not amused but settled the dispute amicably by making a donation to a school in New York City, while the reporter released the domain name to the company.

Subsequent trademark problems have not been resolved so quickly or amicably. A company in Illinois, KnowledgeNet, Inc., had registered its name under the U.S. trademark law, the Lanham Act, for goods and services related to computers. A corporation in Virginia, D.L. Boone & Co., subsequently registered "knowledgenet.com" as a domain name. When the Illinois company complained to NSI, NSI took the position that it assigned domain names on a first-come, first-served basis and could not make any changes without the consent of the Virginia company. Failing to get that consent, the Illinois company sued both the Virginia company and NSI in the federal court in Chicago. Although NSI vigorously contested the jurisdictional issues, the court never ruled that it lacked jurisdiction over NSI. The case was ultimately settled when the Virginia company entered into a consent decree giving the Illinois plaintiff nearly everything it had asked for, and NSI was dismissed as defendant.

Probably as a direct result of this case, NSI, in July, 1995, announced a new policy which gave trademark owners at least some relief. The policy, later amended in November, 1995, allows the owner of a federally registered trademark to complain to NSI if its identical mark is registered as a domain name by someone else. If the original domain name owner has prior rights in the identical name or can also produce a federal trademark registration, NSI's policy allows the original domain

name owner to continue to use the name if it posts bond and agrees to indemnify NSI against legal liability and expense. If the original domain name owner does not agree to this, or if the original domain name owner does not have prior rights or a federal registration in the identical name, NSI suspends the domain name registration pending the outcome of whatever court or arbitration proceedings the two parties may bring against each other.

The NSI policy in practice satisfies almost no one. It does not even attempt to deal with the rights of "common law" trademark owners, i.e., owners of trademarks that are not registered under the Lanham Act, and it does not deal with the issues raised by ownership of marks that are not famous, e.g., ACME, which is the subject of dozens of federal trademark registrations for goods and services that can be sold under that name without likelihood of confusion of the consuming public. Who gets to own those domain names? Furthermore, the NSI policy provides no means to deal with likelihood of confusion cases. For instance, CODAK is not "identical" to KODAK nor is KELLOG identical to KELLOGG.

The tremendous increase in the number of domain name registrations and the ever-increasing number of trademark disputes arising from such registrations prompted NSI to seek an amendment to its contract with NSF. In August, 1995, NSI announced that NSF had amended the contract to allow NSI, for the first time, to impose a fee for the registration of domain names. The fee applies not only to new applicants, but also to all present users.

The rationale for this policy was, in part, that the original payment by NSF to NSI for its services was inadequate, and NSI simply could not continue to operate if it were to incur tremendous losses based on the demand for registrations. Another part of the rationale was that some of the increasing demand was from speculators (both individuals and

corporations) who, having heard about domain names being held for ransom, wanted to get in on the action and grab names that could be sold to trademark owners who had not already registered their marks as domain names. NSI's theory was that a fee (initially \$100 for two years and \$50 per year thereafter) would cut down on the number of such speculators. It is doubtful that the policy has had this result. After a brief dip in the number of domain registrations, it appears that the number of applications is continuing to increase at a geometric rate.

The new fee for registration policy has had another unintended effect. Many of the long-time users of the Internet, and especially those who are not large corporate entities with trademark portfolios, are outraged at having to pay for a domain name registration which has traditionally, and in accordance with the often anarchic principles underlying the Net, been available for free.

A further contentious issue affecting trademark owners is the question of how to find out who is using what domain name and, more importantly, what range of domain names similar to a given name are in use. There is a database utility offered by NSI known as "WHOIS," which allows a query of its records to find out company, contact and operational information on any given name. It does not, however, allow a trademark search of the type offered by trademark search firms. Efforts to gain access to the database to expand search capabilities have been rebuffed for various reasons. Other than the "WHOIS" search capability, there is no directory of users of the Internet. (Search programs such as "Yahoo" and "Lycos" can also find users, but do not perform trademark search functions.)

Given the impact on trademark owners of NSI's domain name policies, in late 1994, INTA established an Internet Task Force. In September 1995, the INTA Board of Directors approved a resolution endorsing in

principle the concept that domain names can function as trademarks and that the assignment and use of domain names can result in infringement of trademark rights. The INTA Board of Directors also called upon NSI to make available to the public complete lists of domain names.

For the most part, however, INTA's comments and offers of help and assistance to NSI have fallen on deaf ears. The engineers and other "techies" that run Internet apparently have little interest in addressing the concerns of the legal and business communities.

One of the most intriguing questions that has arisen from the disputes over NSI's role and its policies is the question of how NSI gets its power. The question is appropriate because NSI, operating under a contract with NSF, stands astride access (in the U.S.) to domain names that encompass top level domain identifiers, such as ".com" or ".net". If you want to attach your network to the Internet, but you don't like NSI's policies, for whatever reason, you quickly learn that NSI is the only game in town. As previously mentioned, NSI has been sued, but there is no judicial or other determination, as of today, that puts in question its authority to grant or deny the domain names that give access to the Net.

Everyone knows that the Internet is global. If NSI hands out domain names in the U.S., who does the job elsewhere in the world? In most industrial countries outside the U.S., there are voluntary and cooperative groups who collect fees for providing interconnection services to the networks operating in their respective countries. These cooperative groups assign domain names in their countries and coordinate their activities so that each domain name remains globally unique.

By agreement going back to the early days of the Internet, each nation, including the U.S., is assigned a two letter top level domain ("TLD") identifier, e.g., "uk" for England and "jp" for Japan. The

smaller nations have also been assigned these identifiers, and if there is no cooperative entity in, say, Mongolia, then the regional group for Asia, located in Japan, can assign the domain name for a Mongolian network.

Every nation other than the U.S. uses its two letter identifier as the TLD. In England and some other countries, there are also second level domains that roughly parallel those in use in the U.S., e.g., ".co" in England corresponds to ".com" in the U.S. Thus, in England, the Jones Company Limited might be assigned the domain name "jones.co.uk" and in Australia, Smith, PTY would get "smith.com.au".

It should be kept in mind that one result of this global structure is that it is perfectly possible for a U.S. company to have the domain name "jones.com", while there is also a separate UK user with "jones.co.uk" and yet another user in Japan with "jones.jp" and so on in every country all around the world. The trademark implications of this have, of course, rapidly attracted the attention of owners of globally famous trademarks, such as "McDonald's", "Coke", "Kodak" and the like. In many cases, these companies are registering domain names in multiple countries, especially in countries where they operate. As previously noted, however, there is no mechanism available within the domain name registry system to stop unauthorized users from registering a famous trademark in a country where the name is still available.

From a trademark standpoint, there are two separate concerns:

1. A trademark owner may want to establish a web-site using its mark as a domain name. If there is already a domain name registration using that mark, the trademark owner is blocked from using its mark, except for the limited remedies provided by the NSI policy established in July 1995.

2. A trademark owner may find that its mark is being used as a domain name by an unauthorized party. Even if the trademark owner has no interest in using its mark as a domain name, the trademark owner may be concerned about trademark infringement or dilution or both. At this time, there are no reported decisions establishing what might constitute actionable trademark infringement or dilution arising from use of a domain name, although conceptually there should be no reason why traditional trademark legal principles are not available to stop infringement by unauthorized users of a mark. And, as recently noted by Senator Leahy (D-Vt.), enactment of a federal dilution statute in the U.S. may "help stem the use of deceptive Internet addresses taken by those who are choosing marks that are associated with the products and reputations of others."

The trademark issue peculiar to the Internet is that described in item 1 above - namely, the ability of a trademark owner to use its mark as the basis of a domain name. This is especially important because the normal way to find a commercial entity on the Internet (or World Wide Web) is to use its mark followed by ".com". However, if the Acme Company wants to establish a presence on the Internet and finds that someone has already registered "acme.com", its only remedies are those provided by the NSI policy, as revised in November, 1995. It is out of luck if the original registrant turns out to be another Acme that has a registered trademark for that name.

This trademark problem, with the litigation that has already entangled NSI in trademark issues it is not equipped to handle, and the uproar over NSI's imposition of fees for the registration of domain names, has led INTA to explore a number of proposals for changes in the entire domain name system. These proposals include, for example,

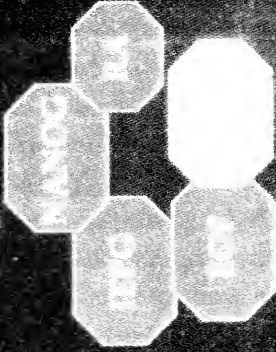
replacing the current domain name system with domain names consisting of random numbers and letters in which the rule would be that no address could have meaning in any language.

At this point in time, however, INTA does not believe that the problems experienced by trademark owners with regard to the issuance of domain names require any amendment to the Lanham Act. We are of the view that the Lanham Act is sufficiently broad and elastic to provide relief to trademark owners against those who adopt domain names that infringe upon or dilute the rights of the mark's rightful owner. As cases get decided, it is our expectation that the current situation relating to domain names will become more settled and that appropriate changes in NSI's policies will be made.

Thank you, Mr. Chairman, for the opportunity to testify. We look forward to working with you and your staff in seeking changes to NSI's domain name policy in order to recognize the legitimate interests of trademark owners.

Internet Players

Operations



Business/Legal



Providers



Admin



Individuals



Governments



Mr. MOORHEAD. I would recognize at this time the gentlelady from Colorado.

Mrs. SCHROEDER. Thank you, Mr. Chairman. And I want to thank our witnesses for being here today in dealing with this issue.

Mr. Chairman, as I was coming to work this morning I had on NPR, and they were talking about how China is trying to educate their people in intellectual property. And I know that that has been a big concern of this committee and it has been a big concern of our Government, and they were talking about what they have done is created a show for television called, "The Computer Family."

It is about this family, and the father goes overseas and he comes back with a computer. And to try and get across how important intellectual property is, they have the mother in that family write a book and the whole family is so excited about this book she has written and how it is going to bring more money into the family and everything, except, voila! Somebody puts it up on the Net and everybody has got it and she never gets a dime. It is gone, which I think is your point, Mr. Cook.

And I think, you know, we sit here smugly and say well, isn't that wonderful that the Chinese are going to be educated on this, but I am not too sure we shouldn't get that show translated and put it on over here, because as I have listened to this, you know, we now have the ability to totally transmit anything anywhere very, very rapidly, and the law becomes a very clumsy tool and probably very inadequate. Nobody can afford to go into court to do that, and by then everybody has got a copy anyway, so it is kind of irrelevant. So I think we are all very challenged as to what we do about this.

Dr. Pings, I was terribly interested in your comment about the footnotes. No one has ever said that about this bill before. Where do you get that—that this bill would require permission of, and possible payment to, the copyright holder for footnote citations in a scholarly work?

Dr. PINGS. Well, that is probably—it may be an extreme reading, and it may be one that is flawed, but I must tell you as a practicing scientist, the scientific—the evolution of new—the scientific process and evolution of discovery is always based on the—an obligation to base it on past work. You cannot report a piece of new work without putting it in the context of the theoretical framework. That involves citations to the literature and quoting of specific articles that have been copyrighted, and it involves citing other experimental work that is in the same category.

I do know that even in the print medium, on occasion I have gotten requests for release of diagrams in articles that I have published, because someone wants to use them. Now, I have never had a request for release on a footnote, but that—in the print medium that has not been regarded in that way. So we are concerned about the interpretation. We are raising it as an issue. It is not clear to many of my colleagues that read this that it would be clean cut.

Mrs. SCHROEDER. Well, my understanding is there has never been such an interpretation before, and I guess what I am trying to find out is what you think might be in this bill that is new that would require it in the future. Maybe I should ask Mr. Cook. Are you—

Dr. PINGS. Let me give you my quick sense about it. The laws as—particularly under the 1976 law and the provisions of section 107 with respect to fair use, the provisions that other work may be cited if it is in the line of education, teaching or scholarly endeavor or research, we read the new legislation before us today as reserving all rights in a very narrow sense to the holder of the intellectual property if it is transmitted over this network. And this was the basis of my concern that there needs to be clear provision, that those fair use—that would include that type of citation—would have the same permissiveness that we know of now in the print media.

I don't think our colleagues are asking for much more than this at the time. Now, mind you, there are unknowns here, as all of us have touched today. We do not know what will be the full evolution, but based on recent practice, I think that would go a long way. And as my concluding remarks, I suggested that some attention might be paid to the language of that section and either modify that to include the word, "transmission," or modify and amend this bill pending here today to make sure that there is a fair-use provision comparable to section 107 of the print media.

Mrs. SCHROEDER. Because I think if—if that is indeed a problem, that is very easily fixable because I think we all thought fair-use came along with this. So do not turn on your night light. I don't really think that is going to be a fear.

Mr. HEATON, I am very troubled by your testimony on page 4, where you say you believe that even when an online service receives actual notice of a copyright infringement, you should incur no liability for failing to respond.

Mr. HEATON. I think the point is one of notice versus knowledge. We have talked here about knowledge. One can receive a phone call, one can receive a letter, an E-mail saying there is infringing material accessible over your service. Do something about it.

That does nothing to answer the question, is that right? Is it infringing? How do we know that it is?

I think that at the very least here what the discussion here has shown is that there is an expectation that knowledge, actual knowledge of the infringement, that it is in fact infringement, is important for an online company to be able to take that kind of action. We do not have that certainty in the law at all.

At the very, very least, what this pending bill should do is clarify that point, because the analysis that it takes to reach the conclusion, is this particular set of circumstances an infringement without a defense, is extremely difficult. So the point about notice is in stark contrast to actual knowledge of the infringement.

Mrs. SCHROEDER. Well, but—my time has expired, but it seems to me that you can make the case that the service is making money by transmitting pirated materials. I mean, you could become the pirate online service and get software, songs, whatever. And if your position is even with actual knowledge, actual notice, you know, you can just keep going, I am troubled by that. I think you go way, way, way too far.

I mean, we do not let anybody else just say, oh, we have no responsibility.

Mr. HEATON. Let me clarify that then because that is not the position. Again, I would emphasize the distinction between mere notice and actual knowledge of the infringement. In fact, what I would like to suggest—I believe very much in a progressive and constructive approach to this very practical problem.

What I would suggest is bringing into it the relationship the online companies do have with customers. What about a copyright owner coming to an online company saying, hey, we think there is infringement. Would you please send a notice immediately to your member and ask that member to tell you that either they have the rights to do what they did or that they authorized you, the online company, to delete it.

We would be happy to conduct that type of a liaison role. But we haven't had good, constructive discussion about that I think because there has been a lot of positioning going on and a lot of holding on to a particular position.

I believe that kind of constructive approach to this helps provide for some practical solutions, but at the same time doesn't put an online company into the position of having to decide very, very difficult copyright analysis issues.

Mrs. SCHROEDER. Mr. Cook, do you have anything that you want to respond to there?

Mr. COOK. Yes, Congresswoman. First of all, a company put on notice or that has knowledge that there is a copyright material that they are in the process of handling or distributing is already covered by the law. They are called willful infringers. What we are looking at here and what we are suggesting is a provision where essentially after something has been posted, and the copyright owner says, wait a minute, that is my material, that there is essentially a time-out called over the Internet, and especially with respect to that service provider where they take it offline, so the damage to the copyright, irreparable damage to the copyright, is not done in the interim during this 2- or 3-day window, whatever Congress determines that information would be put in the penalty box and then a determination is made by the copyright owner bringing forward his bona fides saying this is my material. Any other contentions by third parties or posters could come forward at that time as well.

Now, the conditions and the way that that could be handled, I think, has been suggested by the witness who followed me here this morning. Inside the domain name area, we have had arbitration that has come up as a matter of course that has been designed by SAIC for the Internet. That type of a parallel provision could apply in this environment and would do immense good for the copyright holders in this country.

Mrs. SCHROEDER. Thank you. I think it is the old adage of the horse out of the barn. But I mean the horse out of the barn is like nothing when you get the copyright out of the lines. So that is where we are.

Mr. COOK. To follow up that point, Congresswomen, in the SEGA case, which is roundly regarded as one of the great victories for copyright holders in the country and is a successful measure for service providers as well, counsel in that case told me it was 2 weeks before they could ever get to court with that computer pro-

gram that was posted on the Internet. The damage had been done. That is what we are talking about, a successful case.

Mr. HEATON. Under that scheme, however, the big problem you will have, the very practical problem, is that one will simply be flooded with allegations of infringement, and under that proposal, the online company would simply have to take each and every one of those identified, its files, news groups, forum areas on an online service, simply take them down until such time that it is resolved. The mischief that alone could result from that is staggering.

Mrs. SCHROEDER. But if there is a flood of infringement, you ought to deal with it. Right?

Mr. COOK. First of all, there is a flood of infringement that is a crisis.

Mrs. SCHROEDER. Well, I have gone way beyond my time—and I have got to leave because I am already late to my next thing. But I think what we are getting on here is important, and we have all got to figure this out, Mr. Chairman, but everything is totally moot if we cannot figure out a way to protect copyright. And I also fear that copyright owners are going to run from the Net rather than to the Net if they think there is no protection. So that is a concern I have.

Mr. COOK. I am sorry, Congresswomen, just to finish up. What I was going to suggest is that frivolous allegations can certainly be stopped—nipped in the bud—by some kind of bonding requirement, so that the copyright holders aren't going to come forward with frivolous claims. A bonding requirement penalizes them if there is a frivolous nature to their allegation.

Mrs. SCHROEDER. I see. That makes sense.

Mr. PURCELL. Sorry. I just—there are ways to protect copyright holders on the Internet without holding the ISP, the Internet service provider, liable. And there are things that can be done both mechanically and—not that can sniff out copyright violations, but that copyright holders can do to protect themselves in presenting their information on the Internet. Nassau is on the Internet. It has publicly available information. It has information on there that you can only get to if you are authenticated.

And likewise, to put—following up here just one second, is coming back to what is correct notice. If one of our customers is virgin, and if they post something for one of their artists and we get notification from Columbia Records that that virgin is violating a copyright that they hold from when that was in their—when that artist was with them, it is impossible for us to make that determination. And now we have notice.

Mrs. SCHROEDER. But there are a lot of cases where it is easy.

Mr. PURCELL. I agree.

Mrs. SCHROEDER. And also, what you are saying is there has got to be a time-out because if you just sit back and say, oh, well, we cannot prove this, you can say that on everything and meanwhile there is no value to the copyright. Now everybody in the world has it so 10 days later when they solve it or 10 years later when they solve it, it doesn't mean anything. So I think that is what we are trying to find, somewhere in between.

Again, Mr. Chairman, I apologize a thousand times for talking too much.

Mr. MOORHEAD. That's all right. You did great.

It must be apparent on every member of the panel there is a tremendous difference of opinion on these subjects. We do not want to make mistakes but, you know, the biggest mistake of all can be to do nothing or to just drag your feet forever.

There is a lot of people that have copyrighted work that do not want them on the Internet at all because there is no protection for them. And the people in the educational community may be deprived of many of the things that they would get if the copyright owners thought that they were being protected. It is true all the way down the line.

I think personally that we need to do something and fairly soon. And I am not prepared to let this thing just drag on forever. So we will undoubtedly have some action. Maybe I will get out voted, but I want to see that something is done if we can do it.

If there is a mistake, something has to be corrected, that can easily be done in the future. If there are things that have to be added in, they will be added in in the future. It doesn't all have to be done at one time.

But I don't think that we can just sit around and say, well, somebody else take care of this or the courts will take care of it or—people cannot afford to go to the courts every time that they have a problem. There has to be some definitive law that they can follow.

There are many issues that have to be considered before determining what standard of liability there ought to be for online service providers; if there should be any statutory liability to all, to find out.

Yesterday Representative Goodlatte made a proposal that a commission undertake a study of this matter and report its recommendations to Congress within a reasonable time. Do any of you have any comment on that recommendation that he made? Yes, Mr. Purcell.

Mr. PURCELL. Commercial Internet Exchange would welcome the opportunity to sit down and work with both peers, competitors, and people from various viewpoints, to actually come up with a solution. And we would be happy to do that on your timetable.

Mr. HEATON. I would add to that that we have been—I have been personally involved talking with the representatives of the copyright owners, various sections in the country, about this, continue to talk to them and working on practical solutions that we can arrive at and agree upon. So a commission would be consistent with that.

The caveat I would suggest is that if the intent, though, is to go ahead with this line in the meantime, I would suggest that at the very least two things be done: No. 1, it be quite clear that there is no intent to broaden any liability, but more importantly—and that would be by way of implication such as the failure to do anything despite the debate that has been going on. But second and more importantly, I believe, is to clarify the very expectations that were articulated here today, which is that there is an expectation for an online provider or an Internet access provider to actually affirmatively take material down; that there is a level of actual knowledge of the infringement. Otherwise, it becomes a complete

crap shoot and it can simply turn the national information infrastructure into a litigation pool.

Mr. MOORHEAD. I think in reality, your desire there will be—surely will be followed up one way or the other because that is the way the courts have gone right down the line. I think Mr. Cook can tell you that as a different point of view, but you do not get judgments against people who didn't have actual knowledge.

Mr. HEATON. Congressman, you do. In the *Franer* decision you got exactly that judgment despite no knowledge, and in the *NETCOM* decision the court there indicated that all that would be required to be contributorily liable would be some likelihood of infringement; that is, that the notice that you would get would be sufficient to let you conclude that there is a likelihood of infringement. Moreover, in their vicarious liability discussion, knowledge doesn't even come into play.

Mr. MOORHEAD. You can go over where—you should have known to the extent that no one is going to believe that you didn't know. That is what you are getting involved with.

Mr. Cook, do you have a comment to make on that?

Mr. COOK. Just as a follow-on to what these gentlemen have said, my clients fully concur. Their position is the sooner we bring this to a head, the better they are going to like it. Every day means copyrights are lost on the Internet. My clients want the benefits of their programs.

Mr. MOORHEAD. Yes, Dr. Pings.

Dr. PINGS. Mr. Chairman, also I want to remind you that our constituents and our universities are creators of much of the knowledge and new material that goes on these networks. We are urging that you move deliberately to assure copyright protection in a way that will assure board dissemination of new and exciting information.

If there is time for a commission to take one more look at this, we would be more than delighted to participate in that. If the legislation is to move forward while that commission is still working, as in the spirit of my colleagues, I ask that there be attention paid to one basic detail that we think is important; namely, that something be expressed that it is the intent of the law that is enacted that the fair provision—fair use provision protection be no less than has been historically in place for print media. I think that would go a long way to relieving anxieties in the university community.

Mr. MOORHEAD. You are very concerned about the welfare of the institutions that you have served with. If you add UCLA to that, it would be fine also.

Dr. PINGS. Another one of the fine members of my association, sir.

Mr. MOORHEAD. Ms. Simmons-Gill, should Congress encourage the establishment of an international registration system administered by a world body which would issue a domain name valid in any signatory country for a low fee to be paid through a national trademark office? You know, this is probably a slight expansion of what this would have in it, but should it be done that way?

Ms. SIMMONS-GILL. I think so, Mr. Chairman. I think that you may have an opportunity here, unlike with the trademark laws of

multiple countries, which have advanced in some cases into treaties, I think you may have a chance here to recognize the global nature of domain names and addresses and of an opportunity to do it right as opposed to glue it together, which is what we are trying to do with trademark law.

It will be difficult, and we are very much needing the cooperation and at the mercy of the engineers who established the Internet, because they are not—not enamored of business or of law. They are rightfully concerned about the dissemination of information, the free flow of information and we certainly honor the first amendment in this country, but the Internet has grown beyond a provider of educational and defense information. It really has become a commercial highway as well. And yes, I think it has to be international to work. Otherwise, all you do is move the sites to another country.

Mr. MOORHEAD. Mr. Purcell.

Mr. PURCELL. Not to disagree, because we have had clients with trademark issues, as recently as the last week, and having to work through them, including casinos operating offshore with names of our casinos in the United States. But having the Government spend money or try to legislate international law is not going to work. There are ways to make it work and there are mechanisms that can be put in place without costing the Government anything, but simply creating boundaries or guidelines for how domains are used, and I mean domains the dot com, the end part of the domain, and then passing trademark protection—recognizing domains for the same trademark protection as anything else.

So Pepsi has trademark protection with Pepsi in the Internet just as they do with Pepsi in the written or the oral or the televised form. So there are ways to do it. And I would recommend sitting down primarily with the commercial industry, and then with your group and some other concerned parties in hashing that out, but it wouldn't—there are ways to do it that wouldn't cost the Government and the people any money.

Mr. MOORHEAD. The gentleman from California has been very patient as he has waited for his turn.

Mr. BONO. Thank you, Mr. Chairman.

It has been very interesting listening so I am not as patient as I appear to be. This is a fascinating situation so I like to hear every bit of data that I can and try to absorb whatever I can.

Mr. Cook, you are an attorney. Have you defended any of the issues that we have talked about yet in a civil court?

Mr. COOK. Defended the cases?

Mr. BONO. Yes.

Mr. COOK. I haven't defended any people that have been charged with infringing. No, I haven't.

Mr. BONO. You have not?

Mr. COOK. No.

Mr. BONO. I see. Do you feel confident that if that happens that you will be—you will be able to convey the situation to a judge and that he will be able to understand the issues as far as copyright is concerned?

Mr. COOK. No, I am not—I am not confident about that at all. I have litigated a lot of computer cases and network-related cases.

It is very difficult to get the technology across to the courts in many situations.

Mr. BONO. It is a problem?

Mr. COOK. It is enormously difficult, yes.

Mr. BONO. So from your point of view, then, you are saying if we simply depend on the civil courts to evaluate who the good guy is and who the bad guy is, that in itself can be a very difficult situation?

Mr. COOK. That could be enormously difficult and it also leads to a lot of inconsistency in the conclusion in the case law, and the case law when it comes down is cited for all types of different positions. Courts are trying to make determinations about the technology without having done the background study to find out what is out there. And they are going off on what they see from their limited section of the pie and projecting that; "well, this must be the way it really is out on the access provider network or on the on-line service provider network" and not taking into consideration the full technology. That is why we are making the request for your attention on these issues today.

Mr. BONO. That is a wonderful point. I wish I could put it as articulately as you did.

That has been a concern of mine, is that you get a—you get a judgment. It becomes the standard and pretty soon—and that standard could be established with a judge who doesn't have a clue about copyrights, and pretty soon the whole Nation is working off of that standard. So not only do you have to deal with copyrights, you have to deal with a standard that some judge has passed and then alter that.

So, again, I don't know if you have been here since I have spoke, but my fear is there just is not a protection here, and in the area of copyrights, I don't know how they can be protected. And I presume we have some providers here as well. And I don't know if they can even provide the protection, you know. It feels like they certainly do not want that responsibility, but even if they had it, I don't know if they could provide it. Would you care to comment on that?

Mr. COOK. I sure would. Congressman, could I just share a story with you?

Mr. BONO. Certainly.

Mr. COOK. In 1989, I was invited to speak at the virus conference in New York City and on that occasion one of the other speakers was the head of the computer science unit at the Bulgarian University and at that time we had a big proliferation of computer viruses that were called, I think, the black or dark avenger viruses coming out of Bulgaria. His section of the university was responsible for engineering those hostile viruses, and I confronted him as to that. I asked him why his students were developing viruses that are going to attack our computer systems instead of legitimate computer programs.

He said to me, Mr. Cook, you have to understand, in our country we do not meaningfully enforce our intellectual property rights. I have bright, brilliant programmers that work for me 4 years, 5 years, but in Bulgaria they write a significant computer program on the first day, as I mentioned in my testimony, on the first day

it is protected. On the second day, it is shareware. On the third day, it is freeware and everybody has it.

What is the economic incentive for a programmer to work in that kind of environment? That is what happens when you do not protect your intellectual property laws, Mr. Cook.

He made the point with me.

Mr. BONO. I understand. Let me ask you one more question. How can, in its current existence, how can we protect the copyright today all things being equal? And then I will give Mr.—first, you, and then I will give Mr. Heaton a chance to respond to that same question.

Mr. COOK. Thank you, Congressman. First of all, the copyright laws as they currently exist should continue to exist. Included within that are all of the defenses to the fair-use defense specifically. But as I have suggested, we need a law where copyright holders aren't forced to go to court; that they can go to their service providers and access providers and tell them about specific copyrights that are posted and put an obligation on the service providers to remove that copyrighted information or allegedly copyrighted information immediately from the network to preserve the value of the copyright. That is what we are suggesting needs to be done as soon as possible.

Mr. BONO. OK. Mr. Heaton.

Mr. HEATON. I am not a technician, but I would suggest at least three, and I know there are better answers than mine. My understanding is that encryption may provide some protection because those digits, those digitized bytes and bits, can be encrypted so that they are only understandable to one with the key at the other end of the line.

Also, I believe the current law, H.R. 2441, has a provision that talks about outlawing the tampering with protective devices. That means to me that there must be others who are contemplating protective devices that presumably would be—have some levels of effectiveness to them. And also I wouldn't underestimate at all vigorous enforcement at the core of where the infringement is. Nothing will promote a disregard for the law then a failure to enforce it. And I think copyright owners need to enforce it not just where there are online providers who are truly at fault, but also they need to consider pinpointing the individuals, making an example perhaps from time to time, to send a message to people that they should think twice before infringing.

Mr. BONO. Are you saying, then, invent another machine that will control this? Is that basically what you are saying?

Mr. HEATON. I said on the technology side of it I said two things: One, that the technology of encryption, I think, will be useful in protecting copyright, but also I am assuming there are other technological solutions that are contemplated. I simply do not know what they are. Simply because the bill before us has provisions in it that talks about outlawing tampering with those kinds of devices.

Mr. BONO. Yes. I will let you comment. I just want—I just want to comment and then, Mr. Purcell, you can comment.

What bothers me, I am a songwriter. I own several copyrights and I am minding my own business. And now this thing comes

along, and it means if somebody wants to take and abuse the privileges of my intellectual property, they can. And we can take them to court and do something about it. But I don't particularly want to go to court all year. I don't particularly want to spend the money I am going to have to spend now to protect my intellectual property.

So I think that just to look at this as—to look at the solution of just saying, well, we can take it to court and have it decided there can be a solution, I think, that is an impossible solution, not at all feasible and would be—would be another mistake.

And I want to make one other comment and then, Mr. Purcell, you can make yours.

It seems like this—the Nation sometimes, especially with the computer, sometimes things get revered and the computer is revered almost. And the Internet is revered because of its future capabilities.

And it is imagined what can be done. It is staggering, the new horizon. Therefore, we must put our pedal to the metal and start immediately. So away we go with this incredible, amazing ability to do these things, and it is lawless.

I think that we are all making a mistake in looking at this—placing this thing in place first before we think about controls. If you think about anything in the past, anything that doesn't have controls is a tremendous failure.

Again, you have this thing that is so tempting to the Nation because of its capabilities and to the academic world because it is an academic dream come true; but, you know, it lacks rules, and it lacks control. I mean, if we didn't have rules in football, what you would have is 11 guys on each side beating the hell out of each other to see who could get the ball and get across the line. That is how the game would be played, you know. So they had to put all of these rules in, and these rules had to be adhered to.

I am just—one other thing. Copyright is not the only area of danger here. Defamation of character, wait until that starts having some fun. Wait until it is read on a daily basis like a newspaper, and you start ripping people apart.

And I can tell you this, that if you are sued—I was sued in the case of the dissolution of Sonny and Cher, and one of the things they threw in for laughs was white slavery, and so the judge immediately threw it out. But it stuck for a year, you know, so there is another one for you to chew on.

I mean, you can defend it, but defense in these—this is staggering, especially if they don't like your mustache. And then we have people that are not necessarily normal today, walking around that we think are normal; and they are injecting aspirins with cyanide. So, you know, pretty soon you can recommend a recipe that will kill your whole family.

I am just saying, where these things can go is limitless. So, again, I can't stress enough that let us be careful about entering a frontier without the controls and viewing this thing totally.

With all due respect to the chairman, yes, we must protect copyright. But to say, well, we have got to do something fast is fine, but if it means we have to just get this thing rolling no matter what, if there is no rule, we have got to push ahead here, I think

that that is a disaster that—that could be a disastrous mistake, one of the biggest this Nation has ever seen.

So go ahead, Mr. Purcell.

Mr. PURCELL. Mr. Bono, you have written some great songs, and they deserve to be protected, and they should be; and Mr. Cook has clients with writings that likewise deserve to be protected.

In a situation where you and anonymous posters or people who are truly unauthorized presenting information and then we Internet providers receive notification of such, we are more than happy to work with you to stop it, to stop them being able to transmit that information. We are willing to work with you and law enforcement to track those people down. Where we have a problem is with the way it could be interpreted.

And when I refer to the courts, I don't mean that kind of a thing. We are more than happy to jump right on that. What I mean is, Mr. Bono, let's say you start a Web site and you post your songs to it. You are selling them and have it encrypted so people can get them or whatever.

One of your old labels informs us they own the copyright on those, not you. You say you own the copyright on those, not them. Should we shut you off? Should we shut your operation down and stop providing transmission or access to your site? Or should we request that the parties make an independent determination and then we will take direction from what is correct?

So where it is a third party, a not-related, we have no problem. Where we have a problem and I bring up courts is you and your label, who also has an Internet site, get into an argument. Do we shut everybody down?

Mr. BONO. That is a good point, and that is what I am trying to illustrate to you. Say I say this is my copyright. Now somebody else says, no, that is my copyright. Well, you have a huge problem. You do not know whose copyright it is.

Mr. PURCELL. Mrs. Schroeder brings up a point, gee, you look at it reasonably, and nobody would do that. Let's not look at it reasonably. Let's look at it like trial attorneys would look at it, look at it as an opportunity.

Mr. BONO. My point is you don't have the capability of necessarily of determining the truth, and that is the problem. That is going to be the problem in the future, is some guy can come along and, if he is gutsy enough, say he is a big liar, I wrote that, you know, 4 years before he did, and here is some proof. I mean, how can you respond to that as a lawyer, as a judge? You can't. It gets so messy and so sloppy.

Mr. Cooks' point is so well taken. That is confusing to a judge, let alone you. Because the judge does it professionally. But if the judge decides the other guy wrote my songs, then there is a whole new precedent that I have to overturn, and it costs me a hundred thousand dollars to give this guy all of my money and all of my copyrights.

So that is what we are jumping into here. So, again, I think we have to go with great caution and gingerly, and that is my trepidation with this whole issue. I do not think we are there, by far. I think—and we have only looked at one aspect, copyrights. There

are other areas of tyranny here that we have to explore and protect.

I thank you, Mr. Chairman.

Mr. MOORHEAD. Thank you. We are going to bring to a close this meeting, and I want to thank each one of you for coming.

I would tell Sonny that nothing ever happens very fast around here. It took 18 years to get the National Energy Act going from the time we started trying. It took from 1934 to a few minutes ago to get the telecommunications bill.

Mr. BONO. I thank the chairman. I agree with you, Mr. Chairman.

Mr. MOORHEAD. That was 62 years ago. I did not think we are rushing something through here very fast.

Mr. BONO. You are absolutely correct. Probably we are talking about semantics, and I could most probably have misused the term in that sense. You are right. We do have to—we do have to move, and we do have to look at this.

I guess what I was just really trying to convey is that we need to understand this fully before we pass our laws.

Mr. MOORHEAD. You have to get started on these things or you never get to the end.

Mr. BONO. That is true.

Mr. MOORHEAD. The record will close on February 15. If you have things to add, get them to us. We will do the best we can.

This is an important subject. I think this is one of the most fascinating panels we have had, and I think that is partly because of the tremendous diversity in this panel. Every one of you had a good statement to make, including Dr. Pings who had to leave and catch a plane. It will all be helpful, and we will do the best we can to combine the needs of everyone we can. Thank you very much.

[Whereupon, at 12:09 p.m., the subcommittee adjourned.]

A P P E N D I X

**MATERIAL SUBMITTED FOR THE HEARINGS
POSITION PAPER
OF
NETSCAPE COMMUNICATIONS CORPORATION
ON H.R. 2441
NII Copyright Protection Act of 1995**

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INTRODUCTION

Netscape Communications Corporation, a leading provider of Internet software, submits this position paper in opposition to H.R. 2441, the NII Copyright Protection Act of 1995 ("the NII Act"), in its present form. The Act is designed to implement the recommendations of *Intellectual Property and the National Information Infrastructure*, the Report of the Working Group on Intellectual Property Rights, dated September 1995 (the "White Paper").

As acknowledged by the White Paper (page 22), the ultimate aim of copyright is not to provide ever-greater reward to authors. Rather, it is to promote the general public good. The proposed NII Act would defeat this overriding principle. It could seriously handcuff an important new industry by imposing unworkable administrative burdens all out of proportion to the benefit conferred on copyright owners.

In summary, this position paper discusses the following reasons why the NII Act should not become law in its present form. First, this paper discusses the background and gives an overview of the Internet, including the rapid growth of the Internet during 1995 and how this growth was not considered while the White Paper was being drafted. Second, this paper shows how the NII Act could impose serious and unworkable administrative burdens on the Internet. Third, this paper explains how better ways may exist to solve the problems alleged by the proponents of the NII Act (copyright content providers) which would lessen the administrative burdens on companies providing or using Internet services or products while still providing substantial protection to copyright owners. Finally, this paper concludes by discussing how the issues raised by the White Paper and the NII Act need far more consideration than they have been given to date. Without such additional analysis, it would be ill-advised to pass the NII Act in its present form.

I. BACKGROUND AND OVERVIEW OF THE INTERNET

A. Overview

The Internet is a complex global network consisting of thousands of independent computer networks run by private businesses, government agencies and educational and research institutions. Rather than a specific kind of network, however, the Internet is actually better thought of as a set of standards or protocols that lets various types of networks intercommunicate. The protocol, called TCP/IP, enables communications between public and private networks running over any medium: phone lines, traditional network lines, fiber, and even cable television wires and wireless systems. It is also computer-independent, running across PCs, Macintoshes, workstations and mainframes.

Across the Internet, users can share information, discuss topics of interest, research various subjects, or -- increasingly -- conduct commerce. Commercial use of the Internet promises to be an area of explosive growth in the years ahead, as companies look for ways to reach the increasing number of users online and to leverage the Internet to streamline and improve their business.

To gain access, a company or organization creates a local network using off-the-shelf technology from any of a number of vendors and then pays an Internet service provider for a link from that network to the Internet. An individual at home can also link his or her computer to the Internet through an Internet service provider. Once connected, an individual can communicate with any other person on the Internet, even if that person resides halfway around the world.

According to industry estimates, as many as 30 million people are on the Internet today, with the number growing at 10 to 15 percent per month. Today, the Internet spans all developed continents and

countries. While more than fifty percent of current Internet users are in companies or organizations, the number of home users is growing rapidly.

B. The Internet is a New Technology Enabling a Huge Worldwide Exchange of Information

The Internet creates a vast change in the ways people communicate with each other. Before this century, communication was largely limited to distribution of paper copies made either by hand or printing press. Controlling and accounting for the distribution of such paper copies to protect copyright owners was a relatively simple task. In this century, people now communicate primarily by voice or by video. While such analog electronic forms of communication have created a number of copyright issues, those communications can still be easily identified. They generally are point-to-point communications, such as a telephone call from one number to another. Also, as long as a private telephone call is not considered a public performance or a distribution, the oral reproduction of a copyrighted work in a telephone call raises no serious infringement issues.

As the next century approaches, the Internet will potentially change the way people communicate with each other even more than the changes which occurred when paper copies gave way to voice or video. Communication will now increasingly be made by electronic digital data, over a widely distributed worldwide network of computers, containing printed words or images in electronic form. There is a tremendous public benefit in having this digital form of communication succeed. Compared to a printing press or a television station, publishing over the Internet is relatively simple and inexpensive. The Internet will allow virtually anyone to be a publisher of creative works, and will encourage enormous creativity as well as worldwide dissemination and access to those creative works. It will multiply the efforts of Johannes Gutenberg or Benjamin Franklin by the millions.

Recognizing this, even at this early stage of development, more than 70 percent of the Fortune 100 companies have purchased Internet-related software products. Being able to publish over the Internet is significant not just to small entrepreneurs, but also to the world's large, established enterprises.

However, there are significant technological differences between earlier means of communication and the Internet. Communication is no longer point-to-point; there are a large number of intermediate places along the network where a digital communication is temporarily stored before it reaches its final destination. From the standpoint of the copyright owner concerned about its legal rights, there may be no practical consequences of this, but the laws may now impose some liability where none existed using earlier communication methods. Also, in a traditional copyright situation, for example, a publisher or a distributor of material has the ability to check whether the material is an authorized copy, and can choose not to distribute questionable material prior to triggering any copyright liability. Many Internet-related companies in electronic communications cannot do this, since millions of messages are transported daily. Pre-screening for infringing communications is technically infeasible and practically impossible.

Internet companies that act as intermediaries are similar to a telephone company selling yellow pages advertisements to thousands or millions of advertisers. The telephone company cannot be expected to verify the accuracy of each advertisement; for example, if ten pizza stores all wanted to boast that their pizza was the best in town, we would not hold the yellow pages company liable if it did not check every such claim. It is no more feasible to impose the burden of checking every Internet message for copyright infringing material than it would be to require the telephone company to verify every advertisement.

C. The White Paper Did Not Address All of the Internet-Related Issues

Although the Internet was created as a scientific research and military communications tool over 25 years ago, much of the explosive growth in the *commercial* use of the Internet has occurred just within the past year, during 1995. See the illustrations attached as Appendix A. Significantly, the White Paper was largely written before this huge growth in commercial Internet-related products took place. Its near-final draft was released in June, 1995; its final version was released in September, and the NII Act was introduced into both houses of Congress at the end of September. At best, the White Paper was written without fully appreciating the economic impact of the growth of the commercial Internet.

Moreover, the catalyst for the White Paper, the Administration's NII Initiative principles (see this URL for a complete statement of the principles: "<http://ftp.arpa.mil/NII/Checklist.html>"), is over three years old. The NII Initiative was conceived and launched well before the recent period of explosive growth and popular use of Internet products and services. It is worthwhile to consider the possibility that the NII principles proposed may need to be revisited in order to review the recent advances made by Internet technologies and applications. Simply, the many-to-many medium of the Internet is far different from the traditional one-to-many medium of broadcast-based technologies such as television, radio and newsprint. The NII principles and their progeny should acknowledge this important difference.

One important aspect of the commercial use of the Internet involves the growing use of "browsing" software. Browsing software is a user-friendly interface for an individual's computer to enable millions of readers or subscribers to "browse" the vast quantities of information now available from thousands of Internet content providers. Netscape's Navigator and Spyglass' Enhanced Mosaic are examples of commercial browsing software that have been on the market for less than two years.

Given the vast amount of potentially available information, not every reader or subscriber will want to read in detail all of the content available in the Internet, or obtain entire or even partial copies of the content. Rather, a user may wish simply to read one source of information on the subscriber's computer screen and move onto the next source of information without making any permanently fixed copies of what was read. (For example, research for this position paper included browsing a number of Internet sites, such as Congress' own legislation finder, <http://thomas.loc.gov>, and the Patent and Trademark Office's Website, <http://www.uspto.gov>.)

Rapid distribution of the content of Internet sites is essential to successful browsing. As the number of content providers and subscribers increases, this problem becomes an acute one. The system becomes overloaded; figuratively speaking, there is a traffic jam on the highway. To help speed up the process, Internet service providers have used a procedure known as "caching."¹ The working process of caching can be illustrated as follows. When a subscriber first requests content from a Website, the browsing software will establish a connection between the subscriber and the Website, to display an electronic copy of the desired document. If the subscriber then goes to a different content source but later wants to return to the first document, that connection must be reestablished in some manner. If the

¹ Caching is a technical aspect of the hypertext transfer protocol (HTTP). HTTP is the computer networking communications language that enables the World Wide Web to exist as a part of the Internet. HTTP is one part or layer in the collection or stack of protocols or communications language that make up TCP/IP (i.e., transmission control protocol / Internet protocol). TCP/IP is the language enabling disparate computer networks to intercommunicate no matter their hardware, software, or means of connecting. Caching was developed to provide for processing efficiency in HTTP based communications as HTTP handles Web documents or files. Such documents or files can be rich in data and thus very hefty in terms of transmission time and consumption of network resources. Consequently, in order to make best use of finite Internet bandwidth and routing capabilities (i.e., for the transmission and transfer of the electronic packets that contain the data), transmission of web files or documents is greatly facilitated and in practice dependent upon the process of caching.

Internet provider must go all the way back to the original source of the content and reestablish that entire connection to the subscriber, such a process may be tedious, time consuming, and can slow down the network as it forces redundant file transfer transactions to occur. This adds considerably to the telecommunication costs.

However, if the Internet service provider can instead "cache" the content originally requested in the provider's intermediate computer, it can then send that copy back to the subscriber, rather than retrieve it again from the original provider. To do this, the Internet service provider must store the "cache" copy of the original content in its computer in some electronic form. (It is important to note that copies resulting from caching are temporary in nature because the browsing software periodically deletes them.)

Significantly, from the standpoint of the content provider (the copyright owner), *there is absolutely no economic difference between these two procedures*. By putting copyrightable material on an Internet website, the copyright owner certainly contemplates that, at least to some extent, subscribers will read and potentially copy some of the content. Any economic harm may occur to the copyright owner only if the *subscriber* (not the Internet service provider) makes unauthorized copies of the copyrightable material which otherwise would have been paid for. Allowing the Internet service provider to make an intermediate, cached copy of the original content in solely electronic form should have no economic effect on the copyright owner. (Additional information regarding caching and related issues is contained in attachment B, which was retrieved from the Website of the Worldwide Web Consortium, <http://www.w3.org/pub/WWW>.)

It is not clear how or whether the White Paper adequately considered the implications of this technological process. The next section of this paper discusses the administrative burdens on caching

and other aspects of the Internet which may occur as a result of the NII Act proposed by the White Paper.

II. THE PROPOSED LEGISLATION MAY IMPOSE ENORMOUS ADMINISTRATIVE BURDENS ON THE INTERNET

The stated purpose of the White Paper is to put 100% of the administrative burden of policing copyright violations on Internet service providers. The White Paper notes that direct infringers of copyright are held to a strict liability standard. See White Paper at page 115. It is obviously one thing to impose such strict liability on an individual subscriber who knowingly makes unauthorized copies; it is quite another to impose such strict liability on the Internet service providers, which even the White Paper acknowledges are "relatively innocent" parties. White Paper at page 117. Despite this, the White Paper rejects any suggestion that service providers be found liable for copyright infringement only when they are in essence contributory infringers, by having actual knowledge of the infringement as well as the ability to terminate it. White Paper at 114-124. Rather, the White Paper candidly acknowledges that as between the "two relatively innocent parties" of the service providers and the copyright owners, "the best policy is to hold the service provider liable." White Paper at 117.

Whether one agrees or disagrees with this position, there is a vast difference between letting existing copyright law deal with this issue, on the one hand², and changing the copyright law to make direct infringement by Internet-related companies even more likely, on the other hand. The burden such

² See *Religious Technology Center v. Netcom On-Line Communication Services, Inc.*, No. C-95-20091 RMW (N.D. Cal., Nov. 21, 1995) (holding service provider potentially liable for contributory infringement, but not for direct infringement). The NII Act could call this result into question, and impose liability for direct infringement.

a change would impose on the Internet could be administratively difficult, if not impossible. There are at least three aspects of the NII Act, in its present form, that could have such an undesirable result.

The first of these are the proposed amendments to the distribution right of 17 U.S.C. § 106 (3) and in the definitions of "publication" and "transmit" in 17 U.S.C. § 101, contained in § 2 of the NII Act. These changes might be read to impose liability for direct infringement for caching and similar replication processes discussed above. It would create artificial bottlenecks and greatly slow down the performance of the entire network system. As discussed above, there is no economic benefit which a copyright owner will receive if such procedures are prohibited.

Netscape suggests that these amendments should not be made at this time.

Second, § 4 of the NII Act adds a proposed new § 1201 to Title 17. Section 1201 prohibits the manufacture, distribution or use of any device of which "the primary purpose" is to prevent the violation of any of the copyright owner's exclusive rights under § 106. The proposed NII Act does not define "the primary purpose," and its definition will no doubt be litigated for decades. A copyright owner may argue, for example, that a piece of software violates proposed § 1201 even if it has many lawful uses, and even if the provider of the product insists that those lawful uses are the intended, primary purposes of the product.

For instance, the White Paper contains a number of technological suggestions to restrict improper access to copyrighted works, such as encryption. See White Paper at 185. Encryption software contains with it a decryption portion that unscrambles the encrypted text. However, companies sell encryption (and decryption) software for a variety of uses: enabling secure electronic mail transmissions, transmitting confidential documents electronically to remote offices of a nationwide or worldwide enterprise, and the like. Copyright owners have stated that they would like to use encryption software

to protect their copyrighted material while in transmission and while in digital form from unauthorized use (see oral testimony of Jack Valenti, February 7, 1996, before the Subcommittee on Courts and Intellectual Property, Committee on the Judiciary, hearings on the NII Copyright Protection Act of 1995, HR 2441). If a copyright owner should decide to use one of these encryption techniques to encrypt its copyrighted works, it could then argue that the "primary purpose" of the decryption portion of the encryption software would be to circumvent the copyright in its encrypted works, and hence violate § 1201. Although the seller of the encryption product could point to its many non-infringing uses, it will be subject to expensive and lengthy litigation merely to determine (1) what the legal meaning of "primary purpose" in § 1201 is, and (2) whether that legal definition applies to the particular facts of the case. Such litigation, and the associated costs of evaluating each piece of technology, would be an unacceptable burden upon the Internet.

Netscape suggests that § 1201 not be enacted in its present form. Rather, instead of outlawing products whose "primary purpose" is to enable a violation of copyright, any proposed act at this time should merely prohibit any products with "no substantial use" other than to violate another's copyright. Such a definition would be consistent with the concept of substantial non-infringing use, which is already reasonably well defined in copyright and patent law.

Finally, the White Paper proposes that criminal copyright infringement be imposed even absent any commercial motive. White Paper at 228 to 229. Such a statute could be selectively used to prosecute politically unpopular Internet-related entities who would need to prove that their acts were not "willful" in order to escape criminal prosecution. Given the existing burdens on our criminal law and prison system caused by prosecution of violent criminals and drug dealers, adding additional criminal penalties to the Copyright Act at this point seems unwise.

The above changes to the copyright law may create a number of undesirable burdens in addition to those discussed above. The burdens will be particularly harsh for smaller, entrepreneurial publishers. The Internet allows anyone to distribute and publish on a worldwide basis using a decentralized distribution system. The additional administrative burdens which the NII Act might impose would kill the efficiencies of this distribution system, and have a chilling effect on small publishers. Only large companies could afford to address these burdens and deal with them. The effect would be to eliminate smaller publishers and centralize all information flow in a few large media outlets. Those few large outlets would control the flow of information, in a manner totally contrary to the freedom of speech traditions of our cultural heritage.

For instance, the White Paper implies that Internet companies could simply pay for licenses for copyright content where available. See, e.g., White Paper at page 82 (suggesting that licensing should supplant the fair use defense); see generally White Paper at 49-59. Licensing may not be a practical solution for small publishers regardless of the form in which it is available. For instance, obtaining individual licenses from thousands or millions of copyright owners would be an administrative nightmare. Yet, the White Paper suggests that service providers be strictly liable for direct infringement even despite the administrative burdens of trying to obtain individual licenses.

Nor are block licenses, from entities such as the Copyright Clearance Center, a completely realistic solution for the small publisher. Such entities may or may not have the rights to license the specific content actually needed by a small publisher; a small publisher may be forced to license vast quantities of unwanted material just to obtain licenses to that which is actually needed. Of course, the small publisher must pay for such unwanted material even though it is unneeded. Moreover, the licensing structure of such entities may be inflexible and not take particularized situations into account.

In sum, it will only be the large, established publisher who could successfully negotiate such licenses without substantial burden. As a result, the legislation in its present form would create a marketplace hostile to individual and small publishers, and friendly to large entities in possession of copyrighted materials and established channels of distribution. Such centralization and consolidation of media is an anathema to the spirit and purpose of the Copyright Act and its tradition throughout our nation's history. It is important to remember that the Copyright Act was enacted to enable creation of content to further public awareness and understanding of the arts and sciences -- in effect, to create a more literate society. Centralization and consolidation of media and distribution channels chills individual creativity and stunts literacy. Moreover, such centralization and consolidation is directly opposed to the decentralized and open nature and design of the Internet itself.

Many of Netscape's own customers are large holders of copyrighted material. They use our software to distribute and present their content to consumers. Netscape has a strong interest in the ability of its customers to use our products to their full potential. Hence, it is not in Netscape's interest to have its customers fear using the Internet because of uncertainty that they may have concerning the status of copyright law that can be used to protect their content. Netscape's interest in helping its customers extends all the way from the large holders of copyright to the individual because our software enables the single user to be a publisher as much as a consumer of content. Hence, Netscape's position on copyright is one of balancing interests: protecting legitimate interests of copyright owners while not encumbering the Internet industry or users with administrative burdens that would effectively negate the efficiencies innate to the technology that creates the many to many, point to point medium that is the Internet.

Thus, the changes suggested by the White Paper and the NII Act would be analogous to imposing liability on the manufacturer of the printing press, rather than on the purchaser of the machine who improperly used it to infringe another's copyright. In essence, the NII Act would send Johannes Gutenberg to jail merely for inventing the printing press. When the nature of the Internet is correctly understood, this analogy becomes an apt one.

III.

THE WHITE PAPER IGNORES TECHNOLOGICAL ALTERNATIVES WHICH COULD SOLVE THE PROBLEMS IT ADDRESSES

By placing 100% of the burden on the Internet service providers and related companies, and none of the burdens on copyright owners, the White Paper and NII Act impose burdens that are out of proportion to any corresponding benefit they confer on the copyright owners. However, there are technological solutions being developed which may solve some of the concerns expressed by copyright owners, without requiring Internet companies to bear all of the burdens themselves.

To permit many different computers to communicate over its distributed network, the Internet uses a number of protocols, which are rules or standards designed to enable computers to connect with one another and exchange information with as little error as possible. Certain of these protocols permit digital documents to have codes embedded in them which could be used for a variety of screening or blocking purposes. For example, the World Wide Web Consortium has a working group to use such codes to block access to certain kinds of material by children. See the attached discussion of the Platform for Internet Content Selection, or "PICS" (found at <http://www.w3.org/pub/WWW/PICS/>).

Similar codes could be used to prohibit copyright infringement. A copyright owner who wished to restrict access to its content could put an appropriate code in the digital copies of its work which, if

compatible with existing Internet protocols, could tell the Internet provider's computers that access to such works should be restricted. Works containing such blocking codes could not be accessed without some sort of permission or grant from the copyright owner, such as some special access fee paid by the subscriber, collected by the Internet service provider, and passed on to the copyright owner.

For example, copyright content providers could establish two types of Websites: a free portion with limited copyright material, and a separate portion (akin to a "pay-per-view" portion) which contains more detailed copyrighted content. The second portion would have blocking codes to prohibit its access without paying a fee. Similarly, if the owner of copyrighted material wished to prohibit caching, it could be permitted to do so if a technological protocol which could be read by the service provider's software automatically instructed such software not to allow caching, or to restrict cached content to the original subscriber(s).

By putting some of the burden on the copyright providers, such schemes would be much fairer and more evenhanded than the present proposed NII Act. The copyright content providers would have to add such codes to their existing material. This should not be a significant burden. Copyright owners who seriously are concerned about limiting access to their works should be more than willing to add such codes to any of their works. Other copyright owners may very well be willing to permit greater access to their works rather than add such blocking codes; either way, it would be their decision.

Content owners have supported coding technologies and systems for a long time already; for example, the Dewey Decimal system relied upon by librarians to organize and catalog; the ISBN and Library of Congress tracking numbers; and movie rating systems. It would not be difficult for content owners to work with the technical community on an open and easy to use coding mechanism such as a PICS technology that would enable copyright owners to protect their assets in a digital age.

IV. CONCLUSION

In conclusion, Netscape believes that the existing proposed NII Act does too much too fast. It is based upon a White Paper which did not adequately consider the rapidly changing nature of the Internet during the past year or two. Accordingly, it fails to consider fully the implications of its proposed legislation, and fails to consider alternatives which not only are more equitable but could achieve the same goals at far less cost. In short, the NII Act needs more careful study and discussion before it is passed into law. It would certainly be a grave mistake to kill an significant new industry, which a great many people think is very important, in its infancy.

Respectfully submitted,

Dated: February 14, 1996

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Radical Growth

- **24+ million Web users as of Sept. '95**
 - Est. 15-20 million new users in the last nine months
 - Expected to double in the next 6-9 months
- **280,000+ web servers as of Nov. '95**
 - est. 230,000+ in the last nine months
 - Going to 2.4 million in 1997



Worldwide Internet Users

1994

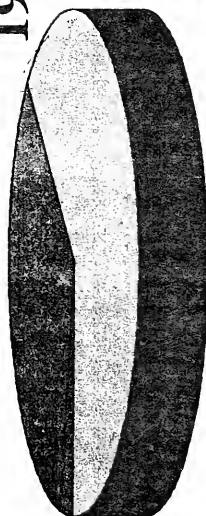
Full Web/Network
Access 3%



Total Users = 38MM

1999

Email Only 34%



Partial/Shell
Access 3%

Full Web/Network
Access 63%



Total Users = 199MM

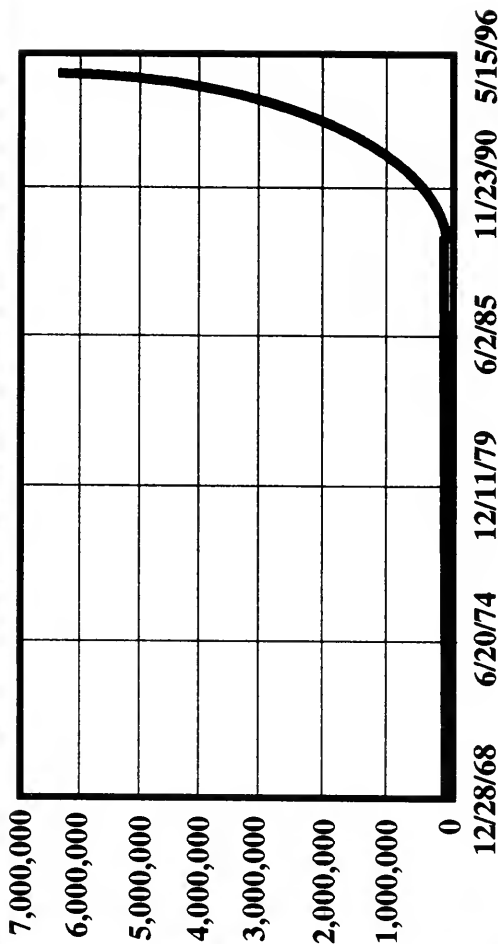
Source: IDC Jan. 1995

January '96 ComNet

Netscape Confidential

NETSCAPE

Internet Host Growth 1969-95E



Source: Network Wizards



NetLogo Confidential

January 1996, CamNet

2 NETSCAPE



B
From: <http://www.w3.org/pub/www/Propagation/Activity.html>

Propagation, Replication and Caching

Introduction

There are currently a number of distribution protocols on the internet which are suited to different patterns of readership distribution. The protocols differ in the conditions under which information is transferred.

SMTP

Transfer on author demand. Readership defined at time of publication, in 1..10,000 range.

NNTP

Transfer unconditionally to all sites. Wastes resources globally when used for small readership, and doesn't scale very high.

HTTP

Transfer on receiver demand. Readership unlimited. Network suffers when readership is high.

When an individual makes a piece of information available, it is currently that individual's choice of application which implies the protocol which will be used.

Misuse of resources or bad performance occurs when the wrong protocol is used. Here are three examples of a use of one protocol when another would have saved resources.

The use of mailing lists to distribute information for a very wide audience most of whom will not be interested, wasting time, disk space and bandwidth.

The use of global network newsgroups for low readership interpersonal messages, wasting disk space and network bandwidth on all participating sites;

The use of HTTP to distribute Shaemaker-Levey comet pictures or Olympics results, causing network overload on the server.

The fact that transfer of an object over HTTP only occurs at the request of the receiver gives it a good record for relevant use of bandwidth. However, in the case of very high readership, or of frequent retrieval of the same object by the same person or group, HTTP is inefficient. Caching clients and caching proxy servers have addressed this need to a certain extent. However, the nesting of proxy server increases response time, unnested proxies will be very numerous and put a high load on original servers, and cache hit rates tend to be under 50% [DEC paper]. Therefore, a cache-based system has a limited impact on network bandwidth.

Proposal

We propose that the HTTP protocol be extended to allow not only caching but also the preemptive distribution of material to caches (replication).

We also propose that the flexibility of this protocol be sufficient to determine as a function of user demands the most appropriate algorithms to be used, relieving the user of this choice. This implies a possible merging of applications (such as mail, news and web access) originally considered distinct, or perhaps a retention of the different applications but a independence of the protocol choice from the application choice.

Requirements

Efficiency

One could define the efficiency of the system may as the ratio between the reference network load and the actual network load, where the reference network load is the sum over network hops of bytes transferred using simple HTTP with no proxy. The actual load is the cost in actual byte/hop products, which in a caching system has to be averaged over all connected access of the source document.

Response time

A fundamental requirement of the web as a global hypertext system is that access time for a random document should be low, whatever the reader's reading history to date may have been. (Zogg studies indicated human problem solving was impaired when retrieval times rose above 100ms. [ref? Robert Asckyn])

In practice in the Wide World, as bandwidth and CPU speeds rise, the number of round-trip delays becomes the limiting factor. The response time requirement translates into a protocol requirement for minimizing the number of serial transactions with different parties, and the number of round trip times for each.

Storage limitations

We must assume that any participant node in the system has a limited amount of storage to make available for caching objects and metainformation involved in the protocol. As this storage reaches capacity, the system should degrade gracefully.

There is an overall web requirement for scalability, which given finite storage at each node rules out any systems in which complete network maps or hypertext maps or name tables are kept at any one node.

Limited Human Intervention

At some point a human must dedicate resources (storage, processing, bandwidth) to the use of the system but after that stage the user should not have to be involved in making routing or optimization decisions.

The essence of the problem

There are two complex problems involved. One is the multicast routing problem, which is the generation of the distribution tree for optimum efficiency for a given readership pattern (known or expected) and a given network topology.

The other is the name resolution problem. When a client first requires access to a random object, for which a multicast route may already exist, it must in a short time find the location of the nearest copy. This is not to say that the problem cannot involve, for example, an initial query to the original server, so long as in future access can be directed to a closer copy if available. Most cache systems involve grouping objects, and assuming a correlation between accesses to documents in the same group. The basic rule of HTTP is that the URL of a document, once the initial domain name has been resolved, is a random string to which no semantics may be attached. There is a provision for the use of hierarchical spaces (used with relative addressing) but there are no numerical constraints on the number of objects at the same points in a hierarchy: indeed, there are webs containing an infinite number of virtual documents.

However, caching schemes have been proposed [...] which assume a hierarchical structure and use it to control

preemptive propagation. Systems such as Lotus Notes(tm) use a very rigid structure to allow replication.

In the future we expect URIs to become more like names and less like addresses. This means that any control information which enables cache efficiency may not be encoded in the URIs, and so must be transferred in metadata, essentially in list of names. The less structure there is in a name, the more difficult it is to scale the storage of the name tables; the more structure there is, the more likely it is that the name will later have to be changed as the storage structure changes. This is an essential problem of naming.

A property particular to the web is its hypertext links, and there is scope for statistics to be taken not only of object access but of link traversal. The topology of the web, as well as of the net, is input to the process.

What is needed are some sound engineering compromises combined with some good algorithms. This is an area for directed research, and grass roots experimentation, and it will be interesting to see which produces the results most effectively.

Current Situation

There is a certain urgency which may be deduced from network usage graphs, which show HTTP traffic increasing with a faster exponential growth rate than total Internet traffic. In 1995 the HTTP traffic is becoming a significant proportion of the total, and so web growth is pushing network upgrades, causing performance degradation, and itself being slowed by network limitations.

There is experience with caching protocols in distributed systems, with flooding protocols, with caching in web proxies and clients. There is a body of work on multicast routing, and on naming. I am not aware of any work which has been based on the hypertext link structure.

There are many log files available (both from clients and servers) and it is fairly easy to generate network and hypertext maps. All of these resources may be used for testing proposed algorithms under simulation.

See [overview of resources](#).

The deployment of caching proxy server can be expected to increase. As well as making short term gains in efficiency, this provides us with a set of network hosts into which a more sophisticated protocol could be introduced. If a good protocol can be modelled and tested on the small scale, we have a deployment path for it into the field. The set of NNTP servers might be an alternative deployment target.

Next Steps

The W3C would like to link with research efforts in this field and is open to proposals for collaboration.

This is basically personal proposal, not representative of W3C members. It was presented in brief in a number of talks and at the IAB workshop on information infrastructure.

Tim BL 950315



From: <http://www.w3.org/pub/www/PICS/>

C



Platform for Internet Content Selection

PICS is a cross-industry working group whose goal is to facilitate the development of technologies to give users of interactive media, such as the Internet, control over the kinds of material to which they and their children have access. PICS members believe that individuals, groups and businesses should have easy access to the widest possible range of content selection products, and a diversity of voluntary rating systems. Please see the [PICS Statement of Principles](#) for further information on the PICS vision.

[Proposed updates to current specifications \(3 Jan 1996\)](#) [New](#)
[Rating System and Rating Service \(21 Nov 1995\)](#), submitted as an [Internet Draft](#)
[Label Syntax and Communication Protocols \(21 Nov 1995\)](#), submitted as an [Internet Draft](#)
[PICS reference code](#) [New](#)

[Overview of the PICS effort](#), presented by Albert Vezza (Associate Director, MIT's [Lab for Computer Science](#) and Spokesman for PICS) at Internet World, October 30, 1995.
[Description of PICS Technical effort](#), presented by Jim Miller (Research Scientist, [World Wide Web Consortium](#) at MIT's [Lab for Computer Science](#), and co-chair of PICS Technical Committee) at Internet World, October 30, 1995.
[PICS Rating System and Rating Service \(draft specification released on October 30, 1995\)](#)
[PICS Statement of Principles](#)
[Mission and Scenarios for Content Selection](#)
[Technical Committee Charter](#)
[Application to Join Technical Committee](#)

News and Updates

[30 Oct 95 Press Release: 15 Organizations From Around The World Pledge Support For PICS Platform](#)
[30 Oct 95 Press Release: DEC, NewView Join PICS Development Team](#)
[27 Oct 95 Media Advisory: Internet World Press Conference, 30 Oct 95](#)
[11 Sep 95: Press Release](#)

Background Information

For background information, please see the relevant section of the [Consortium Prospectus](#), [Content Labeling & IPR](#).

PICS also maintains two electronic mailing lists for public use:

PICS-info@w3.org is where we distribute public announcements related to the PICS project. Anyone may subscribe by sending email to PICS-info-request@w3.org with the word "Subscribe" in the Subject: field. PICS-ask@w3.org is for the public to send questions about the PICS project.

Supporting the PICS Effort

If your company would like to support the PICS effort and join in upcoming press opportunities (the next is October 30, 1995 at Internet World in Boston) you should read and approve the PICS Statement of Principles. You must then send a letter (fax or USPS only).



Comments to Jim Miller

Webmaster

Created 11 September 1995 by Rohit Khare

Last updated 01 Nov 1995



From: <http://www.w3.org/pub/www/PICS/principles.html>

PICS Statement of Principles

PICS is a cross-industry working group whose goal is to facilitate the development of technologies to give users of interactive media, such as the Internet, control over the kinds of material to which they and their children have access. PICS members believe that individuals, groups and businesses should have easy access to the widest possible range of content selection products, and a diversity of voluntary rating systems.

In order to advance its goals, PICS will devise a set of standards that facilitate the following:

Self-rating:

enable content providers to voluntarily label the content they create and distribute.

Third-party rating:

enable multiple, independent labeling services to associate additional labels with content created and distributed by others. Services may devise their own labeling systems, and the same content may receive different labels from different services.

Ease-of-use:

enable parents and teachers to use ratings and labels from a diversity of sources to control the information that children under their supervision receive.

PICS members believe that an open labeling platform which incorporates these features provides the best way to preserve and enhance the vibrancy and diversity of the Internet. Easy access to technology which enables first- and third-party rating of content will give users maximum control over the content they receive without requiring new restrictions on content providers.

Membership in PICS includes a broad cross-section of companies from the computer, communications, and content industries, as well as trade associations and public interest groups. PICS member will deploy products and services based on these standards.

Comments to [Jim Miller](#).



- Employment** Vice President, General Counsel, and Secretary
Netscape Communications Corporation
May 1995 to present
- Senior Vice President and General Counsel
McCaw Cellular Communications, Inc.
March 1993 to June 1995
- Senior Vice President and General Counsel,
LIN Broadcasting Corporation
March 1992 to June 1995
- Private Legal Practice
January 1981 to February 1992
- Heller, Ehrman, White & McAuliffe
(partner)
 - Murphy, Jerge, Sirianni & Youtz
(associate)
 - Preston, Thorgrimson, Ellis & Holman
(associate)
- Other Professional** Fellow, Discovery Institute, writing a book on the legal system of the
21st century
- Past Member of the Board of Directors,
The Washington Technology Center
- Civic** Member of the Board of Directors, Nature Conservancy of Washington
Member of the Board of Trustees, LAW Fund
Member of the Board of Trustees, Lakeside School
Member of Visiting Committee, Department of Sociology, University of
Washington
Co-Founder, former Co-Chair, and member of the Advisory Board,
ArtFair/Seattle
Past Member of the Board of Trustees, Seattle Children's Theatre
- Education** Stanford University (B.A. with great distinction, 1969)
Phi Beta Kappa
Columbia University (Ph.D. in Anthropology, 1977)
Doherty Fellowship for Advanced Study in Latin America
Woodrow Wilson Dissertation Fellowship
NIMH Research Fellowship
University of Washington School of Law (J.D. with high honors, 1980)
Order of the Coif
Washington Law Review
Judicial extern to Hon. Eugene A. Wright,
Ninth Circuit Court of Appeals
- Personal** Born 1947 (Denver, Colorado); married; two children



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STATEMENT OF
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THE AMERICAN INTELLECTUAL PROPERTY
LAW ASSOCIATION

FOR THE
SUBCOMMITTEE ON COURTS AND
INTELLECTUAL PROPERTY
COMMITTEE ON THE JUDICIARY
UNITED STATES HOUSE OF REPRESENTATIVES

FEBRUARY 15, 1996

ON
H.R. 2441
THE NII COPYRIGHT PROTECTION ACT OF 1995

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Associate Executive Director
MARTHA R. MORALES

Formerly AMERICAN PATENT LAW ASSOCIATION (APLA)

The American Intellectual Property Law Association (AIPLA) is pleased to present the position of the AIPLA on H.R. 2441, the NII Copyright Protection Act of 1995.

The American Intellectual Property Law Association is a 10,000 member national bar association whose membership primarily consists of lawyers in private and corporate practice, in government service, and in the academic community. AIPLA represents a wide and diverse spectrum of individuals, companies and institutions involved directly or indirectly in practice of patent, trademark, copyright, unfair competition law, as well as other fields of law affecting intellectual property.

The digital revolution holds tremendous promise of bringing a vastly richer amount and variety of information and entertainment to American consumers. Greater job opportunities, enhanced trade, and improved education systems are potentially within our grasp. But the same technology which offers these opportunities brings new challenges that can threaten their realization. Unless the creative community —those who can supply the traffic for the information superhighway — are confident that their property will be adequately protected, the nation will not enjoy the full scope of the promised benefits.

Therefore, Mr. Chairman, AIPLA congratulates you and Representatives Schroeder and Coble in taking the lead in the House to consider what changes are necessary to the Copyright Act to ensure that the nation will realize the full potential of the digital revolution. We strongly support passage of the NII Copyright Protection Act of 1995, H.R. 2441. This legislation strikes a good balance in cautiously addressing refinements to the copyright law which will facilitate the expansion of the market for copyrighted works in the digital network environment, while at this same time, not proposing any changes based on assumptions about the possible needs of the

future. These needs will emerge only with experience. While we strongly support prompt enactment of H.R. 2441, we believe it can be strengthened through a few minor amendments which will further enhance its effectiveness.

When the Congress was considering the legislation that became the Copyright Act of 1976, e-mail and easy transmission of text, images, and music by wire were unknown. Thus, when Congress defined transmission, it defined it as "To transmit a performance or display...". Performances and displays were transmitted via radio and television, and the statutory language reflects this history. The coming of the Internet and wide area digital networks have opened new vistas. H.R. 2441 appropriately revises the definition of transmission and related provisions to make it clear that a copy can be distributed via transmission, recognizing that the end result of transmitting a reproduction is the same as if the physical copy had been distributed, except, of course, that another copy has been created.

H.R. 2441 continues protection of authorial expression in a new environment in fulfillment of the constitutionally expressed goal of promoting the progress of science and the useful arts. Indeed, although AIPLA agrees with those who believe copyright law currently covers copyrightable expression that is distributed via digital networks, H.R. 2441 provides clarification and increases certainty, both of which are necessary for the NII to reach its full potential. In addition, the bill maintains the balance between users of copyright information and copyright owners. It also recognizes that copyright owners and distributors have always sought to physically protect their copyrighted works. Printed works are protected by a cover, which in turn is protected in shipment by being in sealed boxes inside trucks or railroad cars. Further, bookstores lock their doors when they are closed.

Analogous protection is needed for copyrighted works in digital form. They can be protected by a variety of technological means, including software envelopes, object encapsulation, and encryption. In fact, techniques of protection for the digital network age are just now beginning to emerge in the marketplace. However, technical devices and systems designed to defeat these protections could make the information highways unsafe for protected copyrighted works and could cause ever-increasing investment in technological protection that could divert funds from those needed to maximize information flow on the NII. H.R. 2441 appropriately includes provisions against circumvention of copyright protection systems. And on a more basic level, copyright management information, which includes basic identifying information such as title, author, and copyright owner as well as information on terms and conditions for use, likewise needs a measure of security which H.R. 2441 provides. In the future, copyright management information could be used with systems designed to grant immediate authorization for all types of uses spelled out in the copyright management information, as well as enable instantaneous contact with the copyright owner's agent to obtain non-routine permissions for specific types of uses and to arrange payment transactions.

While the bill makes a number of needed clarifications, it does not change the careful balance between users and copyright owners that has been the hallmark of U.S. copyright law. Indeed, the recommendation made in the "Report of the Working Group on Intellectual Property Rights" that a Conference on Fair Use (CONFU) be created is, we believe, the best way to address fair use concerns in the digital network environment. AIPLA has been monitoring CONFU meetings, and it is our belief that substantial progress is being made in addressing concerns of both groups by developing written guidelines, area by area, that will provide more

specific guidance to all user communities. This effort recognizes that lawyers are not, and should not be, needed for the everyday decisions that educators and others have to make. We believe CONFU has the potential for removing much of the ambiguity and lack of understanding on the part of user communities that has existed in the past.

Perhaps one of the most important aspects of H.R. 2441 is its role in an international context. First, it is based on today's reality that we are operating within a Global Information Infrastructure, and that national legislation has to respond to this reality. H.R. 2441 therefore includes provisions acknowledging that an infringing importation can occur through digital transmissions from other countries that leap over geographic boundaries. But even more important is the fact that H.R. 2441 furthers and ensures U.S. leadership in copyright law. We lead the world in network technology and our laws should reflect this leadership. H.R. 2441 serves this role well and its provisions are now being studied by all members of the World Intellectual Property Organization as they work toward changes in treaties needed to keep international law from falling behind. H.R. 2441, modest as it is, shows the world that the United States is still the standard bearer.

I would now like to comment on specific sections of H.R. 2441 and suggest ways in which we believe H.R. 2441 could be improved.

Section 2 of H.R. 2441, which proposes amendments to Sections 101 and 106 of the Copyright Act, neither creates new rights nor expands existing rights. However, to confirm that copies or phonorecords of works can be distributed to the public by transmission, and that such transmissions properly fall within the exclusive distribution right of the copyright owner, Section 2 of H.R. 2441 would amend Section 106(3) of the Copyright Act to expressly recognize that

copies or phonorecords of works can be distributed to the public by transmission. It would amend the definition of “publication” in Section 101 to recognize that a work may be published though distribution of copies of the work to the public by “transmission”. It would also amend the definition of “transmit” in Section 101 to clarify that, in addition to a performance or display of a work, a reproduction of a work can be transmitted. Finally, H.R. 2441 would amend Section 602 of the Copyright Act to recognize that a copyright owner’s exclusive right to distribute a work can be infringed through the importation of a work by transmission.

One potential problem with the revised definition of “publication” is that it might lead to arguments that huge online databases which are frequently updated daily would be subject to the deposit requirements of Section 407. Appropriate guidance in the legislative history that the Register of Copyrights should promulgate regulations under Section 407 to require only periodic deposits of on-line data bases (at intervals to be determined after public hearings) would seem in order.

Section 3(a) of H.R. 2441 would amend Section 108 of the Copyright Act. Section 108(a) would be amended to allow the preparation of three copies of works in digital form by libraries, provided that no more than one copy is distributed at any time, and to correct an oversight in previous revisions of the Copyright Act by recognizing that the use of a copyright notice on a published copy of a work is no longer mandatory. Sections 108(b) and (c) would be amended to authorize the making of digital copies for purposes of preservation and replacement, respectively.

We are concerned about authorizing libraries to make even one copy of a work in digital form for distribution under the conditions specified in Section 108(a). The ease with which a

digital copy can be replicated suggests that digital copies should not be treated in the same manner and under the same conditions as books or other traditional forms of works. We agree, however, that libraries should be authorized to make digital copies for preservation or security or in cases where a replacement copy is needed and one is not available at a fair price, as proposed by the amendments to Sections 108(b) and (c).

Section 4 of H.R. 2441 amends the Copyright Act to include a new Chapter 12 to provide protection for technological processes and systems designed to prevent unauthorized use of copyrighted works and copyright management information. Proposed new Section 1201 prohibits the circumvention of copyright protection systems. Although some have expressed concern that this section would reach non-infringing behavior, we believe that the language of the section makes it clear that it is applicable only where the circumvention is "without the authority of the copyright owner or the law", (emphasis added). Indeed, this section should play an important role in increasing the flow of copyrighted works in digital networks.

Proposed new subsections 1202(a) and (b) prohibit, without authorization, knowingly providing or distributing false copyright management information, and knowingly removing or altering such information, respectively. While some concern has been expressed that Section 1202 might preclude the use of pseudonyms or the distribution of works-for-hire by corporate authors, we believe that this concern could be adequately addressed by the legislative history.

Proposed new Section 1203 establishes civil penalties for violation of proposed new Sections 1201 and 1202. The remedies include injunction, impoundment, actual or statutory damages, costs, attorney's fees, and the modification or destruction of products and devices.

Proposed new Section 1204 establishes a fine of up to \$500,000, five years imprisonment,

or both for any person who violates Section 1202. We believe that criminal penalties should also be considered for violation of Section 1201 with intent to defraud. Indeed, circumvention of copyright protection systems appears to pose a greater potential threat to the economic interests of copyright holders than the unauthorized alteration of copyright management information or the distribution of false copyright management information. In addition, the criminal sanctions of proposed new Section 1204 should be harmonized with those of existing Section 506 of the Copyright Act.

We are aware that there is great concern on the part of online service providers about their potential liability for copyright infringement when such behavior is initiated by their members or subscribers. We understand interested parties are working in several fora to address this problem. While the AIPLA has no position on this issue at this time, we believe that it would be better to attempt to move H.R. 2441 expeditiously through the legislative process without waiting for a solution, if needed, to emerge from these discussions, with the understanding that additional legislation might be forthcoming.

Some witnesses at the hearings on February 7th and 8th expressed the view that the traditional first sale doctrine should apply when a transmitter of a work of authorship contemporaneously destroys his or her copy. In a perfect world, this might be an appropriate suggestion. Unfortunately, the world is not perfect, and it would be unrealistic to base a law on the expectation that contemporaneous destruction of the transmitted work would actually occur. Current law prohibits such transmissions, which necessarily involve reproduction of the copyrighted material and therefore are not subject to the first sale doctrine (which is an exception to the right of distribution, but not to the right of reproduction). AIPLA does not believe that the

case has been made for an expansion of the first sale doctrine.

We are indeed grateful to have this opportunity to present AIPLA's views on this important legislation. We stand ready to work with the Subcommittee and to answer any questions you may have. Please do not hesitate to call on us if we can be of assistance.

Statement of the
AMERICAN SOCIETY OF COMPOSERS,
AUTHORS AND PUBLISHERS

In Support of H.R. 2441, the
"NII Copyright Protection Act of 1995"

Before the Subcommittee on Courts and
Intellectual Property of the Committee
on the Judiciary of the House of Representatives

February 15, 1996

The American Society of Composers, Authors and Publishers (ASCAP) strongly supports H.R. 2441, the "NII Copyright Protection Act of 1995." ASCAP commends Chairman Moorhead and his co-sponsors, Reps. Schroeder and Coble, for introducing this important legislation. ASCAP also commends the Working Group on Intellectual Property Rights of the Information Infrastructure Task Force, and particularly its Chair, Hon. Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks, for their commitment to the protection of copyright in the digital environment, and for the development of the draft legislation upon which H.R. 2441 is based.

About ASCAP

ASCAP is a membership association of over 70,000 writers and publishers of copyrighted music. ASCAP licenses, on its members' behalf, the right of nondramatic public performance in their creative intellectual property. ASCAP does so through the mechanism of a nonexclusive blanket license, and so furnishes a valuable service to music users -- through a single, reasonably

priced ASCAP license, they are able to perform all of the many millions of works in the ASCAP repertory as they wish, with complete flexibility and a bare minimum of administrative concerns.

The whole reason for the NII's existence is to disseminate content. Without content, the NII is an empty shell of no use to anyone. And the content that fills the NII with meaning is the intellectual property of creators and copyright owners. One of the most important types of that intellectual property is music.

Because music is, and will be, widely performed in the digital environment on the National Information Infrastructure, it is vital that the copyright law adequately protect, and that users have appropriate access to, musical works. For that reason, H.R. 2441 is of special interest to ASCAP's writer and publisher members. Indeed, ASCAP has already issued many licenses to users for the performance of music in the digital environment. For all these reasons, ASCAP's collective licensing mechanism may offer a model for other copyright owners and users on the NII.

ASCAP Supports H.R. 2441

This statement will explain ASCAP's strong support for H.R. 2441. We will especially focus on section 2 of the legislation, which clarifies that the creator's and copyright owner's right of distribution of reproductions of a copyrighted work includes distributions by transmission. We will also comment on the state of the law as regards the performing right in music on the NII.

The Right of Distribution of
Reproductions by Transmission

We believe that the key recommendation of the Report of the Working Group on Intellectual Property Rights (the "White Paper"), and the key provision of H.R. 2441, is that the Copyright Act should be clarified to provide explicitly that the creator's and copyright owner's right of distribution of reproductions of copyrighted works embraces not merely physical transfers of those reproductions, but also transfers by means of transmissions resulting in the reproduction of the works. In the case of a musical work, for example, this means that the creator and copyright owner of the musical work not only have the right to sell a printed paper-and-ink copy of the sheet music by physical transfer, but also by transmitting it electronically over a computer network and downloading it so that an electronic reproduction occurs in the ultimate user's computer (from which, for example, a physical copy may be printed out).

We have no doubt that the current state of the Copyright Act secures that right to the creator and copyright owner. When a copyrighted work is downloaded into a computer, a reproduction is made by that computer. The means by which that reproduction winds up in the possession of the end user is irrelevant to the fact that a distribution of the reproduction has been made, both as a matter of common sense and as a matter of the language of the 1976 Copyright Act, 17 U.S.C. § 106(3).

Nevertheless, to be sure that there is absolutely no basis for any claim that such a distribution may not take place by means of transmission, section 2 of H.R. 2441 makes an explicit addition to the language of both the

distribution right, 17 U.S.C. § 106(3), and the definition of transmission, 17 U.S.C. § 101.

This clarification is wise because, if all the rights of creators and copyright owners were not safeguarded in the NII, the very purpose of the Founders in providing for a copyright law would be eviscerated. The Constitution empowers Congress to protect copyright so as to ensure the "progress of science and useful arts," that is, to benefit our culture and our society. The Founders wisely recognized that the way to do so was by encouragement of the creator's individual initiative. And, as America's economic system has brilliantly demonstrated, the most meaningful encouragement for that individual initiative -- in works of intellect as well as in more tangible works -- is by granting economic property rights to the creator. Without that economic encouragement, creativity and the investment necessary for it would surely wither.

Thus, the clarification wrought by H.R. 2441 fits exactly within the goals of copyright as established by the Constitution, and within the American economic system which guarantees property rights and the economic benefits which can flow from them to those who create and own the property.

Musical Performing Rights and the NII

The White Paper made no recommendations for legislation concerning the right of public performance on the NII. Indeed, we believe that current law inarguably protects that right on the NII. And because the White Paper so strongly and correctly concludes that protection of copyright is vital to success of the NII, we agree with and support virtually all of its statements

and conclusions. We must note, however, one statement in the report which concerns the performing right and which we fear is capable of misunderstanding.

At the outset, we note that the rights of public performance (found in 17 U.S.C. § 106(4)) and of distribution of reproductions (found in 17 U.S.C. § 106(3)) are not mutually exclusive. A single transmission of a work may result in either or both of the rights being implicated, depending on the circumstances. The White Paper correctly so states (at p. 218):

A transmission could be a transmission of a reproduction or a performance or both. The resolution of these issues should rest upon the specific facts of the case. Such issues will typically be clarified between rightsholders and users in appropriate license arrangements.

Where the White Paper does not completely correctly state the law, and where confusion and misunderstanding might therefore occur, is in its statement that: "When a copy of a work is transmitted over wires, fiber optics, satellite signals or other modes in a digital form so that it may be captured in a user's computer, without the capability of simultaneous 'rendering' or 'showing,' it has rather clearly not been performed." (At p. 71, emphasis added.)

The fact is that, under the current Copyright Law (which will remain unchanged) there is no requirement of simultaneity of the "transmission" and the "rendering" for a public performance to have occurred. This is a vital point because there are many performances of copyrighted works -- especially of copyrighted music -- in which the "rendering" will not be simultaneous with the "transmission." Examples are transmissions in compressed time or real time where the end user makes a reproduction in his or her computer for later "rendition." In such cases, the "transmission" and the "rendition" are not

unrelated acts. They are part of a unified process which ultimately results in the performance of the work, and the Copyright Act recognizes them as performances for that reason.

These uses center about computer-based information services through which end users in their homes or offices interact with central sources (or, through central sources, with each other) to obtain and share information and entertainment. Examples would include computer-based information subscription services such as CompuServe, America OnLine and Prodigy; "video-on-demand" services which can provide motion pictures and other audiovisual works from remote locations; and "audio-on-demand" or "celestial jukebox" services which can similarly provide audio-only works from remote locations. We shall refer to all of these uses as "interactive uses" and the services which provide them as "computer-based information services."

Virtually all of the music uses of such services constitute public performances of the musical compositions used under current law. (The only obvious exception would be the performance of music in a one-to-one communication between individual home or office users -- so-called electronic mail or "E-mail" -- because that performance would be private, not public.) This is the way it should be, for, without the protection of the performing right in such uses on the NII, the single largest source of income for creators and copyright owners of music would be missing. Without that source of income, the wellsprings of creativity would run dry. The purpose of the copyright law, after all, is to "promote the progress of science and the useful arts," and so benefit our society, our culture, and the American public. All such uses of

music on the NII should therefore be, and are, licensable by the creator and copyright owner, as follows.

1. Such Uses are "Performances"

We start with the Copyright Act's grant of the exclusive right to perform copyrighted musical compositions publicly, 17 U.S.C. § 106(4). To determine whether these interactive uses fall within that provision, we must refer to the definitions of "perform" and "publicly" in the Copyright Act, 17 U.S.C. § 101.

The Copyright Act's definition of "perform" reads:

To "perform" a work means to recite, render, play, dance, or act it, either directly or by means of any device or process ...

The placing of a musical composition in an information system such that end users of the system are able to communicate with the system, retrieve the composition (for example, into their home computers), and then play back the composition, entails a "performance." In such cases, both the system and the end user are "rendering" the work "by means of any device or process."

Under existing law, the argument that no "performance" is taking place if the end user does not actually hear the transmission of the musical work as it occurs, but rather records the transmission (for example, by "downloading" it to a magnetic disk) for later reproduction, is wrong. That is because, under current law, the "rendering" or "playing" of the work need not be done "directly," but may be done "by means of any device or process," including different devices and a process occurring over time (we discuss this point further below). Indeed, for that reason, the transmission of a musical work in "compressed" rather than "real" time constitutes a performance, for the

"compressed" time transmission is still part of a process that ultimately results in the "rendering" or "playing" of the musical work.

Similarly wrong is an argument that, because the computer-based information service is transmitting the work to the end users in digital format which the end user must convert to sounds, no "performance" is occurring. Under current law, the method by which the computer-based information service transmits the "rendering" is irrelevant. The "digitized" transmission by a computer-based information service is as much a performance as is the action of a radio broadcaster who, after all, is not transmitting "sounds," but rather is broadcasting electromagnetic waves through the atmosphere which the end user (the listener in the home) is then converting into sounds through the end user's equipment -- the radio receiver.

The legislative history of the 1976 Copyright Act explicitly supports the conclusion that these transmissions entail "performances" of copyrighted works. Indeed, Congress anticipated not only electronic information retrieval systems such as these computer-based information services, but any other form of technique or system by which the same result would be achieved:

To "perform" a work, under the definition in section 101, includes reading a literary work aloud, singing or playing music, dancing a ballet or other choreographic work, and acting out a dramatic work or pantomime. A performance may be accomplished "either directly or by means of any device or process," including all kinds of equipment for reproducing or amplifying sounds or visual images, any sort of transmitting apparatus, any type of electronic retrieval system, and any other techniques and systems not yet in use or even invented.

H. Rep. No. 94-1476, 94th Cong., 2d Sess., 63 (1976). Thus, there can be no doubt that these uses involve "performances" of music.

2.3 Such Performances Are "Public"

Of course, our inquiry must go one step farther: to be protected by copyright, there must not only be a "performance," but it must be a "public" performance. Here, again, the Copyright Act's definition of "publicly" is directly on point.

A "public" performance is not merely one where all those in the audience are gathered in one place at one time, but also one in which the members of the audience are separated physically or temporally. Thus, the Copyright Act provides (17 U.S.C. § 101):

To perform ... a work "publicly" means-

...
(2) to transmit or otherwise communicate a performance...
of the work ... to the public, by means of any device or
process, whether the members of the public capable of receiving
the performance ... receive it in the same place or in separate
places and at the same time or at different times.

The term "transmit" is also defined by the Copyright Act as the communicating of a performance from one place to another (17 U.S.C. § 101):

To "transmit" a performance... is to communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent.

Thus, the computer-based information services are "transmitting" the performances because they are communicating them to the end users. The specific technology used -- whether by telephone wires, coaxial cables, or satellite carriers -- is immaterial. And the performance is "public" because the transmission of the performance is being made to members of the public, even though they are separated physically, and even though they may perceive the performance at different times (for example, when they play back the signal

which has been transmitted, but which they have "downloaded" to their home computers rather than listening to it at the time of transmission).

Again, the legislative history of the Copyright Act supports this conclusion and contradicts the erroneous notion that a "rendering" must be simultaneous with the "transmission" for a public performance to take place. In discussing the definition of "transmit," the Congressional Reports on the 1976 Copyright Act note that, no matter what the form of the transmission, if it reaches the public in any form, each and every act by which the sounds comprising a performance are conveyed and picked up is a "transmission" of a performance:

Clause (2) of the definition of "publicly" in section 101 makes clear that the concepts of public performance and public display include not only performances and displays that occur initially in a public place, but also acts that transmit or otherwise communicate a performance or display of the work to the public by means of any device or process. The definition of "transmit" -- to communicate a performance or display "by any device or process whereby images or sounds are received beyond the place from which they are sent" -- is broad enough to include all conceivable forms and combinations of wired or wireless communications media, including but by no means limited to radio and television broadcasting as we know them. Each and every method by which the images or sounds comprising a performance or display are picked up and conveyed is a "transmission," and if the transmission reaches the public in any form, the case comes within the scope of clauses (4) or (5) of section 106.

H. Rep., supra, 64.

Thus, the fact that the performance is not perceivable when it is transmitted, and indeed that it may never be ultimately replayed by the end user who has recorded it, does not make the computer-based information service's performance any less of a public performance.

This interpretation of the Copyright Act has been supported by the court in David v. Showtime/The Movie Channel, Inc., 1988 Copyright Law Decisions ¶ 26,339 (S.D.N.Y. 1988). There, the court rejected Showtime's argument that it was not "publicly performing" ASCAP music because its transmissions went not to the viewing public, but only to local cable systems for their retransmission. The court cited the statutory language and legislative history, and concluded that "Congress intended the definitions of 'public' and 'performance' to encompass each step in the process by which a protected work wends its way to its audience." Id., at p. 22,181.

The court cited other cases which supported its conclusion: WGN Continental Broadcasting Co. v. United Video, Inc., 693 F.2d 622, 625 (7th Cir. 1982) (holding that "the Copyright Act defines 'perform or display... publicly' broadly enough to encompass indirect transmission to the ultimate public"); Hubbard Broadcasting, Inc. v. Southern Satellite Systems, Inc., 593 F.Supp. 808, 813 (D. Minn. 1984) (stating that "under the broad definitions found in § 101 of the Copyright Act, a transmission is a public performance whether made directly or indirectly to the public and whether the transmitter originates, concludes or simply carries the signal"), aff'd, 777 F.2d 393 (8th Cir. 1985), cert. denied, 479 U.S. 1005 (1986).

A more recent case involving a computer-based information service and the right of public display (which has always been seen as directly analogous to the right of public performance) supports this conclusion that such transmissions are public performances. In Playboy Enterprises, Inc. v. Frena, 839 F.Supp. 1552 (M.D. Fla 1993), 1994 Copyright Law Decisions ¶ 27,288, a copyrighted photographic image was placed on a computer-based information

service "bulletin board" for downloading by subscribers, all without the authorization of the copyright owner. The court held that such transmission infringed the display right: "The display right precludes unauthorized transmission of the display from one place to another, for example, by a computer system." (*Id.* at p. 27,236.) The same is true of the performing right.

In sum then, existing law fully protects the performing right even when the "rendering" is not simultaneous with the "transmission." Despite the law's clarity, it is possible that some may wish to use the White Paper's implication to argue that an ambiguity exists. To answer that erroneous argument, the Subcommittee may think it wise to reaffirm existing law.

Copyright Protection Systems and
Copyright Management Information

We believe that the NII holds the promise of new forms of security for copyright works, and new means of conveying information about copyrighted works which will benefit both creator and copyright owners, and users. As H.R. 2441 recognizes however, it is essential that the integrity of such systems for copyright protection and copyright management information be protected, as provided for by section 4 of the legislation. While we recognize that there may need to be fine-tuning of this provision, we fully support the principle behind it.

Exemption for Libraries
and the Visually Impaired

Section 3 of H.R. 2441 provides certain exemptions for libraries and the visually impaired. Again, while some fine-tuning may be necessary to ensure

against abuse of these exemptions, we have no argument with the principle behind them.

Conclusion

In sum, ASCAP strongly supports H.R. 2441 as a basis for ensuring the protection of copyright on the NII. We stand ready to offer the Subcommittee any assistance we can towards achieving its enactment into law.

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February 15, 1996

The Honorable Carlos Moorhead, Chairman
 The Honorable Pat Schroeder, Ranking Minority Leader
 Subcommittee on Courts and Intellectual Property
 U.S. House of Representatives
 Washington, D.C. 20515

RE: H.R. 2441, The NII Copyright Protection Act of 1995

Dear Chairman Moorhead and Mrs. Schroeder:

The Interactive Digital Software Association ("IDSA") appreciates the opportunity to submit these comments for the record of the hearings held last week on H.R. 2441. These comments reflect the interests of the association's thirty-nine members, which produce about 80 percent of the world's interactive entertainment software. Our members are: Acclaim Entertainment, Accolade, Atari, BMG Interactive Entertainment, Capcom, Capitol Multimedia, Compton's New Media, Crystal Dynamics, Digital Pictures, Discovery Channel Multimedia, Disney Interactive, Domark Software, Electronic Arts, Fox Interactive, GT Interactive Software, GTE Interactive Media, Interactive Magic, JVC Musical Industries, Konami, Life Fitness, Merit Studios, Mindscape, Namco Hometek, Nintendo of America, Ocean of America, Panasonic Software Company, Philips Media, Sega of America, 7th Level, Sony Electronic Publishing, Spectrum HoloByte, TerraGlyph Interactive Studios, The 3DO Company, Time Warner Interactive, Ubi Soft, Universal Interactive Studios, Viacom New Media, Virgin Interactive and Williams Entertainment.

The IDSA was formed in April 1994 as the first association dedicated to meeting the needs of the interactive entertainment software industry. The association represents interactive entertainment software publishers of all sizes and for all platforms, including video game cartridge, video game compact disc, and personal computer platforms. Among IDSA's major activities have been the creation of an 

independent rating system which has become the standard for all computer and videogames, staging the industry's annual trade show and initiating programs to combat software piracy throughout the world.

Our members are small, independent companies; multinational, multibillion dollar corporations; many fall somewhere between the two ends of the spectrum. Yet each company has a vital stake in how the Global Information Infrastructure is developed and how their products will be protected in the networked environment. As Chairman Moorhead noted in his opening statement on February 7, the copyright industries are growing at an extraordinary rate, in terms of international trade, domestic employment and as a contributor to the Gross Domestic Product. Our industry is a major contributor to this growth. In fact, the U.S. electronic entertainment market has annual retail sales for hardware and software combined, of \$10 billion; this market is expected to more than double to \$22.4 billion by the year 2000.¹

The time, resources and financial investment expended by the software industry to create, distribute, market and retail their copyrighted products are enormous; content is the lifeblood of our industry and, as many of the witnesses testified, it is content that will make or break the success of the networked environment. These days, a top end computer or videogame title takes a minimum of 12-18 months to develop and development costs alone can be as much as \$5 million. Moreover, the marketing and actual production costs can easily exceed the development costs. It is crucial for the U.S. to continue its global leadership in protecting the intellectual property which is the product of these creative endeavors. H.R. 2441 and its companion bill, S. 1284, are critical steps toward reaching this goal.

We agree with those who say that this bill is necessary to ensure that the Internet and other networks reach their full potential as entertainment and information centers. And make no mistake: time is of the essence. Lack of definitive law in this area, which clearly and unequivocally protects copyright materials in the online environment, will chill the desire of content providers to fully explore the exciting potential of the Internet. Moreover, it will send a signal to pirates throughout the world that the U.S. is unwilling to take the steps required to safeguard the intellectual property of its citizens.

To be sure, there are many unanswered questions about the networked environment. This Subcommittee has heard how the marketplace is working feverishly to come up with answers. But the facts remain: the Internet is serving as an important tool for the distribution of materials **now**. This bill would foster an environment whereby the full commercial potential of the Internet could flourish, leading to better educational,

¹LINK Resources, U.S.-based figures.

economic, technological and personal opportunities. The intellectual property pirates are already implementing ways to take full advantage of the content available on the networks. It is time for Congress to pave the way for legitimate users to benefit from this revolutionary technology and to give copyright holders the muscle they need to combat the piracy of our works. For this reason, the IDSA congratulates you for introduction of this bill with its modest scope and urges you to continue moving it through the legislative process as expeditiously as possible. We also agree with you that the more complex issues, such as the liability of online service providers, should be addressed more gradually so that the Subcommittee can study and consider the rapid marketplace, technological and judicial developments shaping the online industry.

As is clear by now, the IDSA strongly supports H.R. 2441. This bill reinforces the high level of copyright protection currently available under U.S. law, and assures copyright holders that the exclusive rights found under Section 106, which are enjoyed by producers of all copyright works, are equally applicable in the digital environment. There is a great deal of obfuscation by opponents of this bill. But the issue is really quite simple: it is an undisputed hallmark of our law that the creator of the work is entitled to control its use. This should apply no matter how the work is distributed. Any other interpretation will undo a core principle of U.S. copyright law. In truth, the Internet and other networks offer our members a new method of doing what we do best -- creating and delivering entertaining content. To do that better we do not need a radical overhaul of the copyright law -- just the modest changes included in this bill.

Use of new tools to better serve the marketplace does not threaten the value of the Internet for users. Nor does it hamper users' opportunities to utilize networked communications. Indeed, safeguarding the networked environment from copyright infringements for commercial industries such as ours will provide users with better services and a wider range of choices than ever before. Passage of this bill is a giant step toward the opening of the networks to useful commercial ventures, which will generate growth and market competition. Any business model will support that such growth and competition leads to better and cheaper services to the consumer.

In addition, the Internet is a unique setting because it expands the opportunities for small software publishers, who sometimes have a more difficult time distributing their products through the traditional software distribution channels. On the Internet or the World Wide Web, a small IDSA member can reach as many consumers as its largest competitor. Shelf space at the retail level has not, and probably cannot, keep pace with the proliferation of CD- and cartridge-based products entering the market. Small companies that have one or two innovative products see the Internet as offering great potential as an alternate distribution mechanism. But only with the kind of copyright protections offered by H.R. 2441 can such revolutionary distribution changes take place.

The continued growth of computer networks will foster a healthy economic trend in our industry, which has already experienced tremendous growth in its infancy. The forecasted growth of our industry is even more dramatic when overseas markets are included, since many companies are just beginning to explore the opportunities of exporting and licensing their products overseas, and to tap into the unsatiable appetite foreign cultures have for American entertainment software. Clearly, the Internet could have a huge impact on the entertainment software market.

Specific Comments on HR 2441

NEW SECTION 1201 OF 17 U.S.C.: CIRCUMVENTION OF COPYRIGHT PROTECTION SYSTEMS. The IDSA strongly supports the intent of this provision. The bill recognizes that the copyright protection devices and technologies currently employed by copyright owners, or those developed in the future, are integral in the development of the NII. Without such technological safeguards, coupled with ongoing public education efforts, our industry's products would undoubtedly be the targets of repeated illegal copying and redistribution. Given the power and ubiquity of the networked environment, the time and investment put into the development of our software could be wiped out in a matter of hours. Without the ability to effectively protect our products through technology, and thus to recoup the substantial investment in product development and marketing, there is far less incentive for software creators, publishers or distributors to do business in the online environment. Indeed, even our ability to produce products distributed through retail outlets, mail order and direct marketing would be jeopardized if the individual companies cannot effectively halt the circumvention of technological safeguards used by our members to protect their products, both now and in the future. Section 1201, therefore, is vital.

However, to truly make the language effective, criminal remedies must be included in this section. Civil remedies alone will not deter those who manufacture, distribute or import these devices, nor those that provide circumvention services with criminal intent. As with most copyright offenses, the threat of actual and statutory damages is not enough to deter a would-be criminal. Those who proceed with criminal intent, through the manufacture, distribution, importation or use of devices or services that purposefully circumvent copyright-protection systems, will not be deterred by the remedies allowed under civil actions. These devices will allow criminals to easily access millions of dollars of software that can be sold to unsuspecting end users. Without the teeth of criminal penalties, the civil fines associated with these illegal activities would merely be seen by the perpetrator as a cost of doing business. This sends a terrible message not only to our citizens, but to those in other countries, whose copyright regimes and civil judiciary systems are not as strong as ours. The U.S. should impose criminal penalties on anyone who purposefully engages in activities to circumvent copyright protection devices and technologies. This will send a strong

signal to all of our trading partners, and international bodies such as the WIPO, that the U.S. takes the protection of intellectual property seriously. It will also pave the way for the U.S. government, in particular the U.S. Trade Representative, to urge foreign governments to create similar penalties in their own countries. In the online environment, protection against piracy is only as strong as the weakest network link.

In the same vein, the IDSA urges the Subcommittee to respond to the recent U.S. District Court decision in the case of U.S. v. LaMacchia (871 F. Supp. 535 (D.Mass.1994)). As the Information Infrastructure Task Force's White Paper notes, "[This] court decision demonstrates that the current law [regarding criminal offenses] is insufficient to prevent flagrant copyright violations in the NII context." H.R. 2441 provides an appropriate vehicle for addressing this issue. Failure to fix the LaMacchia problem will in fact undermine many of the positive steps that this bill proposes. By introducing an amendment to H.R. 2441 to remove the necessity of proof that the defendant's online piracy activities demonstrated "commercial advantage or private financial gain" would eliminate a loophole in the law which currently threatens all copyright holders.

NEW SECTION 1202 OF 17 U.S.C.: INTEGRITY OF COPYRIGHT MANAGEMENT INFORMATION. The establishment of copyright management information (CMI) for digital products is an important step toward enabling the NII to reach its full potential. We strongly support the concept that tampering with CMI should be actionable under U.S. law. Based upon the sheer magnitude of potential fraud and misuse, criminal penalties must be applied to this section and we are pleased to see that your bill does so. It is easy to see how criminals could be tempted to manipulate the CMI concerning royalty payments so that a publisher's listing of a royalty rate of \$2.00 per download is altered to read \$.02. Or, worse yet, but infinitely more attractive to an enterprising criminal, diverts the royalty funds from the copyright holder's bank account to the criminal's. To deter these and other criminal activities, civil penalties are not enough of a threat; criminal penalties must be imposed and implemented to make examples of the high-level techno-thieves. Without these deterrents, we risk creating an environment where even law-abiding citizens are tempted by the lure of easy money and cheaper products.

We also believe that the inclusion of CMI or the use of copyright management systems should be voluntary, and that the protected information can only be authored, edited or deleted by the copyright holder or its licensee. It has been argued throughout the hearing forum, and in the process that led to the Administration's issuance of the White Paper, that there are *bona fide* instances where the copyright holder may decide not to include CMI in its transmission. Authors should also have the right to use the CMI to voluntarily disclaim or limit the exercise of their exclusive rights as found under Section 106 of the Copyright Act for whatever purposes they determine.

However, the IDSA strongly opposes any notion of compulsory licensing of our products and want to clearly state that the language found in Section 1202 of this bill should not send a signal to any U.S. or foreign entities that U.S. copyright holders support compulsory licensing in the networked environment. While such licensing may be appropriate or necessary for other industries, the entertainment software industry has developed a multitude of licensing arrangements between content providers and users to accommodate the variety of desired uses of our products. There is no indication that the inclusion of CMI language in this bill would retard the continued development of new licensing models; to the contrary, legal protection for the use of CMI systems in the networked environment will push the industry toward new and more innovative licensing systems to meet the needs of the user community.

AMENDED SECTIONS 101, 106(3), AND 602 OF 17 U.S.C.: DISTRIBUTION OF COPIES BY TRANSMISSION. The amendment of these sections to clarify the inclusion of transmission into the current definition of the exclusive right of distribution under the U.S. Copyright Act is a modest, yet crucial, modernization of the law. It must be clear to all users and publishers on the NII that transmission to the public over the Internet and other networks gives that copyright holder the same protections as if the work was "distributed" in more traditional ways. Indeed, many creators have been operating on this principle already, claiming copyright to their online works, whether it is an enhanced version of a preexisting work or whether the work was created online and only exists on the network. The inclusion of "transmission" in the definition of transmission (and other pertinent sections) of the Copyright Act gives the law a digital update to keep pace with technological developments, but does not in any way alter the intent nor the interpretation of the current statute.

The inclusion of transmission into the distribution definition is hardly as radical as some opponents to this bill have suggested. Indeed, it is entirely consistent with the precepts of current U.S. copyright law.

Response to Other Issues Raised at the Hearings

The IDSA, as well as many other groups representing the copyright industries, is participating in ongoing discussions through the Creative Incentive Coalition (CIC) with the online service providers, as Chairman Moorhead alluded to in his opening comments. These meetings have led each group to a better understanding of how our industries operate, what our concerns are regarding the dissemination of copyrighted products via these services and our responsibilities to the public, as well as to copyright holders. While these discussions have been very enlightening, it is obvious that we have just touched the tip of the iceberg. We have a lot to learn from each other before we can truly explore how to bridge our differences, especially in terms for liability of copyright infringements that occur online. The technological intricacies, market

development and diversity of court rulings in this area are all important factors that need to be weighed and evaluated.

With all of this in mind, the IDSA urges this Subcommittee to push ahead with H.R. 2441 without waiting to fully resolve the liability issue. The other provisions of the bill are far too important to be tabled until an agreement on the liability issue can be reached between the copyright holders and the online service providers. While we are committed to an active dialogue with the online community to find an answer, and while we do believe that a compromise is possible to meet everyone's concerns, it will take time.

We wish to thank the Chairman, Mrs. Schroeder and their staff for the excellent job they have done in bringing this bill before the Subcommittee and in organizing comprehensive hearings on the issues. We thank you for your acute concern on the issues facing our industry and your leadership in seeking solutions that uphold the strong tradition of intellectual property protection that has become the cornerstone for American creativity and invention. As always, we would be happy to supply you with any further information or comments at your request.

Sincerely,


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February 15, 1996

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The Honorable Carlos J. Moorhead
Chairman
Subcommittee on Courts and Intellectual Property
Committee on Commerce
United States House of Representatives
Washington, D.C. 20515

VIACOM

Dear Chairman Moorhead:

On behalf of Viacom Inc., and its subsidiaries and divisions (collectively referred to as "Viacom"), I would like to thank Representative Schroeder, Representative Coble, and you for introducing the Administration's proposed NII Copyright Reform Act in the House of Representatives as H.R. 2441. We also very much appreciate your Subcommittee's decision to hold hearings on the bill, as well as being granted the opportunity to provide the Subcommittee with our views.

Viacom is one of the nation's leading producers and distributors of books, computer software, motion pictures, and broadcast and cable television programming. We directly employ approximately 62,000 people in all fifty states and virtually every congressional district. In addition, we support many more thousands of additional individuals who earn all or part of their livelihood from those works we produce and disseminate. This includes actors, authors, screenwriters, and computer programmers directly involved in the creative process, as well as the employees of book stores, movie theaters, cable companies, and many other companies which profit from the legitimate commerce in copyrighted works.

More generally, copyright industries account for five percent of the U.S. economy and in 1994, collectively exported \$45 billion, with a net surplus balance of trade of about \$31 billion. As a result, how the United States addresses copyright issues is watched carefully by and often serves as a model for the rest of the world. Congressional decisions on copyright can benefit or harm the hundreds of thousands of creators and other Americans who depend on the ability to protect copyrights, both in this country and internationally. The historic congressional support for strong copyright laws has greatly benefited this country, and we hope this support will continue as Congress again addresses the copyright challenges posed by technological advances.

Viacom generally supports the views of the witnesses who testified on behalf of the trade associations representing copyright owners. In this letter, I will focus on certain specific issues and concerns which have arisen during the extensive public comment and debate surrounding the development of the *Intellectual Property and the National*

The Honorable Carlos J. Moorhead
Page 2

Information Infrastructure: The Report of the Working Group on Intellectual Property Rights ("The White Paper") and H.R. 2441.

1. H.R. 2441 is modest legislation which does not unfairly prejudice the legitimate needs of users of copyrighted materials.

Some of the unfortunate rhetoric surrounding H.R. 2441 has created concerns that the proposed legislation represents a major windfall for copyright holders and would deprive users of copyrighted material of the legitimate access to such works which they now enjoy. This is simply not true.

H.R. 2441 contains provisions on (1) transmission and its relation to reproduction, distribution, and publication, (2) archival and preservation activities of libraries, (3) the use of works for the visually impaired, (4) circumvention of anti-copying systems, and (5) copyright management information. Of these five provisions, the first clarifies the law without affecting the relative position of copyright owners and users except that, to the extent a transmission is considered to be a publication, it reduces the rights of copyright owners; the second and third clearly limit copyright; and the last two help copyright owners but with the intent of deterring illegal use and ensuring the dissemination of accurate information concerning a work, neither of which harms consumers trying to make legal use of a work.

In particular, the clarification in section 2 of the bill that transmission of a copyrighted work can be a reproduction or distribution merely updates the statutory language to clearly reflect that which case law has already effectively recognized. It does not create a new right for copyright owners, affect fair use, or otherwise limit the ability of users to legally use copyrighted works.

2. Proposed new section 1201 of the Copyright Act, relating to anti-circumvention devices, is a step in the right direction but needs to be strengthened to accomplish its goals. If the section is further weakened, as some have proposed, Viacom seriously questions whether H.R. 2441 is worth enacting.

The debate surrounding the proposed new section 1201 of the Copyright Act is of some concern to Viacom. We agree with the Administration that there should be limits on the right to manufacture or traffic in products and devices which exist to facilitate the illegal use of copyrighted works. We believe, however, that the provision as drafted will not accomplish that goal. At the same time, we also reject the suggestion in some of the testimony on H.R. 2441 that as long as circumvention devices could be used for legitimate purposes, such as for accessing material which is in the public domain or for purposes of fair use, the law should permit the devices to be used. We will address these issues in reverse order.

Many publishers legitimately print and distribute the works of Shakespeare for a fee, although they are in the public domain. The right of individuals to freely use Shakespeare's works does not extend to picking up a published copy from the shelf of a book store or library and simply departing with it -- that is clearly theft -- much less

The Honorable Carlos J. Moorhead

Page 3

breaking into the book store or library when it is closed to obtain or even read a copy. Similarly, nobody would argue that a hacker can enter on an unauthorized basis a bank's or credit bureau's computer system to review account information, just because he or she has the legal right to review certain information pertaining to him or herself. Unauthorized interception of cable or satellite-delivered programming services is illegal, irrespective of motive, or the fact that public domain programming is also delivered that way.

These same principles do and must translate into the electronic environment with respect to access to audiovisual and literary works. There can be no excuse for unauthorized entry into a private company's proprietary data base or on-line service simply because that data base included public domain material. The right of fair use and free public domain use do not justify the electronic equivalent of "breaking and entering".

In the increasingly electronic world of the future, where illegal reproduction of bits and bites will become even cheaper and easier, copyright owners will, of necessity, resort to anti-copying and encryption technologies in order to protect their product. Illegal reproduction of copyrighted works already costs the U.S. economy billions of dollars (as well as loss of tax revenues) to the federal treasury. Copyright owners should be encouraged, not discouraged, to erect electronic locks which prevent such theft. Whatever the outcome of the debate over whether to outlaw devices and mechanisms that have as their primary purpose or effect the circumvention of anti-copying technologies, Congress should make clear that the actual circumvention of such technologies is illegal.

In addition, because we believe in the importance of outlawing such devices, Viacom is concerned that the prohibition contained in proposed section 1201 of devices for which "the primary purpose or effect " is infringement is too weak to accomplish the legitimate and proper statutory goals. We have no wish to prohibit computers or videocassette recorders, as some opponents of this provision have asserted. However, manufacturers should be held responsible for the production and distribution of machines and devices, a predominant use of which is to facilitate illegal copying. The "primary use or effect" test would be very difficult to prove in practice. People can always claim legitimate motives for conduct. As a result, proposed section 1201 will fail to achieve its aim of keeping infringing products off the market. One possible standard for resolving this concern without creating difficulties for legitimate manufacturers would be to make the prohibition apply to devices which have "any purpose or primary effect" of infringement. We see no legitimate reason to permit the manufacture or distribution of products where there is any purpose on the part of a manufacturer to circumvent anti-copying technologies. There may be other formulations which more effectively address the needs of copyright owners, while at the same time assuaging the concerns of opponents of section 1201, and we would be happy to work with the Subcommittee toward a generally acceptable standard that will enable H.R. 2441 to fulfill the promise of the NII, enabling consumers to access the rich cultural resources available throughout the world, while protecting legitimate interests of creators and copyright owners.

The Honorable Carlos J. Moorhead
Page 4

3. Viacom believes that existing fair use principles can and should be translated into the electronic environment, but opposes expansion of fair use on either a *de jure* or *de facto* basis.

At the risk of being pedantic, it is worth noting that section 107 of the Copyright Act provides an exception to the exclusive rights of copyright owners for "fair use" by others of copyrighted works for "such purposes as criticism, comment, news reporting, teaching ..., scholarship, or research". Such fair use, however, is not unlimited; fair use determinations take into account "the purpose and character of the use, ... the nature of the copyrighted work, the amount and substantiality of the portion used ... in relation to the work as a whole, and the effect of the use upon the potential market for or value of the copyrighted work". Courts have long demonstrated the ability to balance those factors to achieve correct results.

While these determinations are normally made based on the facts of a particular case, copyright owners reached an agreement with libraries and educational institutions in 1976 which established a safe harbor for such institutions and their employees for uses which fit within certain specified guidelines.

The White Paper called for, and the Patent and Trademark Office in September, 1994, convened a Conference on Fair Use (CONFU) to discuss the revision of these guidelines to take into account changes in technology. We have regularly attended these sessions and we hope that an agreement can be reached in the near future. Whether such an agreement can be reached, however, remains to be seen.

Viacom supports the translation of fair use principles into the electronic environment. However, we think it is premature to redefine long-standing terms and standards of conduct in ways that can permit uncontrolled distribution and reproduction of copyrighted material under the guise of fair use. For example, we believe distance learning refers to the transmission of a live lesson by an instructor to remote locations, not to the electronic distribution and reproduction of copyrighted works over computer networks to be accessed by users at a later date. So-called "electronic reserves" which could enable simultaneous and repeated access by tens or hundreds of students to a single copy of a work are not the same as reserving one or two copies of a work in a reading room in a university library. "Electronic browsing," which by definition involves the reproduction of potentially tens, hundreds, or thousands of copies simultaneously, could easily destroy the value of a work. It bears no relationship to thumbing through the pages of a book in order to decide whether to buy it. Samples of works are and will continue to be made available electronically to facilitate consumer choice, but that decision must remain with the copyright owner.

In short, the electronic dissemination of works under current law is, and in the future must remain, an exclusive right of the author or copyright owner. Principles of fair use can be applied by the courts under the current statutory standard, and will lead to consensus on what is permitted. But loosely drafted guidelines will seriously undermine the effectiveness of U.S. copyright law to provide the incentive for the creation of copyrighted works with its attendant benefit to the entire economy. Within these general

The Honorable Carlos J. Moorhead

Page 5

and eminently reasonable principles, we hope to reach eventual agreement on updated fair use guidelines. We would urge Congress to continue to support our efforts to reach an agreement based on these traditional principles and to resist efforts to adopt preemptive legislation which would demolish the meaningful rights of creators and owners of copyrighted works enjoy under current law.

4. Viacom would be pleased to accept Representative Goodlatte's call for negotiations to address the concerns of on-line providers concerning the extent of their copyright liability. However, on-line service providers have an obligation to implement all reasonable steps to inhibit copyright infringement on their networks, and the steps they can take should be a part of those discussions.

Viacom agrees with the views expressed in the White Paper regarding changes in copyright liability for on-line service providers -- that premature legislative changes could inhibit the development of marketplace mechanisms which serve to protect both the owners of creative works and on-line providers. We note that the fears expressed about existing law remain, at this time, hypothetical. The paucity of cases and the judicial verdicts which have been rendered to date do not suggest that on-line providers need to fear of a plethora of lawsuits and ruinous damage awards.

Viacom has been a participant in the discussions sponsored by the Creative Incentive Coalition and the Interactive Services Association over concerns of both copyright holders and on-line service providers regarding the problems of operating in an on-line environment. Those talks helped us realize just how complex this subject actually is, particularly given the many different functions on-line service providers fill, and we believe the talks have been educational and helpful to all parties.

We appreciate and are ready to accept Representative Goodlatte's call for more formal negotiations over legislation to address the concerns that have been raised by the on-line providers. For such talks to succeed, however, we believe they will also have to cover the responsibility of on-line service providers to take all affirmative steps reasonably available to them to inhibit illegal reproduction and distribution of copyrighted material.

Once again, we appreciate your efforts and those of the other subcommittee members to move this legislation forward. We thank you for your consideration of our views.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Polgar", with a long, sweeping horizontal line extending to the right.

Thomas C. Polgar

CAPITAL CITIES/ABC, INC.

77 WEST 66TH STREET • NEW YORK, NEW YORK 10023-6298

ALAN N. BRAVERMAN
VICE PRESIDENT AND GENERAL COUNSEL456-7896
AREA CODE 212

February 15, 1996

Hon. Carlos J. Moorhead, Chairman
 United States House of Representatives
 Subcommittee on Courts & Intellectual Property
 B-351a Rayburn House Office Building
 Washington, DC 20515

Re: H.R. 2441: Recommendations of the National Information Infrastructure Committee

Dear Mr. Chairman:

I write on behalf of Capital Cities/ABC, Inc. ("ABC") to comment upon the changes to the Copyright Act (the "Act") recommended by the National Information Infrastructure Committee (the "NII Committee") and set forth in H.R. 2441 (the "Bill").

ABC supports the prompt efforts of the Subcommittee on Courts and Intellectual Property (the "Subcommittee") to update the Act to reflect the vast technological developments this industry and our nation currently are experiencing. As both a content provider and distributor, ABC particularly understands and respects the delicate balance between the rights of copyright owners and the need for access to information. We believe that the basic principle guiding any amendment to the Act must be to maintain this balance. With this guiding principle in mind, we offer the following comments for your consideration.

I. Transmission of Copies

The final report of the NII Committee (and the resultant proposed legislation) seek to amend the Act to recognize that copies or phonorecords of works can be distributed to the public by transmission, and that such a distribution by transmission falls within the exclusive distribution right of the copyright holder.

While we respect the efforts to clarify the concept of "transmission" as it relates to works distributed over the national information infrastructure ("NII"), we are concerned that, unless specifically excluded, traditional broadcast activities could be understood to fall within the literal meaning of the clarification. We believe that any such result would be both

unintentional and undesirable. As you no doubt are aware, it is well settled in copyright jurisprudence that traditional broadcast and cable transmissions are considered to be "performances" under the Act, not "distributions." As such, amending the Act to equate a "transmission" with a "distribution," without any express exemption for traditional broadcast and cable activities, would result in a drastic alteration of existing copyright law and would severely undermine existing business practices in the broadcast industry.

2. Exemptions for Libraries and the Visually Impaired

(a) Digitization of Library Archives

In an attempt to preserve the role of libraries and archives in the digital era, the proposed revisions to Section 108 would allow libraries to digitize and store up to three (3) copies of works for archival and research purposes. As presently drafted, however, the Bill includes no restrictions on the manner in which such digitized versions may be utilized. For instance, a library could put its digitized versions on a database accessible to the public through the Internet for viewing, copying or downloading. Such action would thwart the very purpose of the Bill -- i.e., to protect copyright owners from the unprecedented and unauthorized copying and distribution of protected works that is possible in the NII environment.

In order to prevent such a result, and to maintain the balance between information access and the rights of copyright owners, it is critical that the amendment to the library provisions of the Act include the following limitations:

(i) digitized materials must not be available on any library database that is accessible to the public other than at the site of the library or archive. If a database can be accessed from a remote location, any information or materials available on that database must be encrypted to prevent the unauthorized reproduction, distribution and/or performance of such materials or information; and

(ii) copyright and other proprietary notices and warnings in the original materials must be maintained in digitized versions. If the recommended copyright management provisions are enacted, these provisions should expressly be incorporated into the library exemption provision.

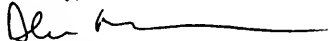
(b) Reproduction/Distribution of Works For and To the Visually Impaired

We understand that the Association of American Publishers, the Library of Congress and the National Federation of the Blind are proposing revisions to the Bill that would allow the visually impaired to have access to publications in a timely manner without undermining the rights of copyright owners. We understand further that the focus of this revision will be to limit the exemption to specialized formats utilized solely by the blind. We anxiously await the proposed revision and support legislation that would make information available to the blind while protecting the market value of one's copyright.

Nevertheless, in the event that the recommendations of the NII Committee are considered as proposed, we suggest that consideration of the respective rights requires that copyright owners be given some type of notice/opportunity to be heard prior to a non-profit organization having the right to reproduce and distribute specialized versions of protected works. In other words, if a non-profit organization wants to reproduce and distribute a protected work (regardless of the lapse of time since first publication), that organization should be required to give the original copyright owner notice of intent; the rights holder then should have some statutorily delineated period of time (we suggest six months) within which to enter the market or waive its right to claim copyright infringement.

We hope that these comments will help the Subcommittee attain its goal of amending the Act in a manner that protects the varied interests of the creators and users of information. Thank you for your consideration.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Alan Braverman', followed by a long horizontal flourish.

Alan Braverman

FEB 15 1996



AMERICAN BAR ASSOCIATION

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February 15, 1996

VIA FACSIMILE

CONFIRMATION COPY

The Honorable Carlos Moorhead
Chairman, Subcommittee on Courts and Intellectual Property
Committee on the Judiciary
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Thank you for your letter of January 23rd, in which you invited me to submit written comments on behalf of the Section of Intellectual Property Law of the American Bar Association on H.R. 2441, the "NII Copyright Protection Act of 1995."

Attached is a copy of a resolution in support of the enactment of H.R. 2441, which was adopted by the Section of Intellectual Property Law on February 6, 1996. The resolution is accompanied by a discussion of H.R. 2441, which contains a number of suggestions for changes in the bill.

These views have not been approved by the House of Delegates or the Board of Governors of the American Bar Association and, accordingly, should not be construed as representing the position of the Association.

Sincerely,

Donald R. Dunner
Chair

DRD:lld
Enclosure

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**AMERICAN BAR ASSOCIATION
INTELLECTUAL PROPERTY LAW SECTION
February 16, 1998**

RESOLUTION 755-1

RESOLVED, that the Section of Intellectual Property Law favors, in principle, the amendment of title 17, United States Code to clarify the application of the Copyright Act of 1976 in the digital environment to distribution of works by transmission, and to preserve the integrity of copyright management information and of technological protection against unauthorized copying of protected works, and specifically supports, with minor modifications, S. 1284 (Hatch) and H.R. 2441 (Moorhead), 104th Congress, 1st Session (1995).

Past Action. None.

Discussion. Currently pending in Congress are two bills (S. 1284 and H.R. 2441) that would amend the 1976 Copyright Act, title 17 of the United States Code. The bills are identical to the legislation recommended by the September, 1995 report of the Information Infrastructure Task Force Working Group on Intellectual Property Rights. The Working Group's charge was to consider whether changes to United States copyright law were needed or desirable in light of existing or future use of digital computer networks as a means of communication. The equipment and technologies that do or will allow such digital communication are called the National Information Infrastructure (NII).

The Working Group spent nearly two years studying the matter and considering comments from many sources and perspectives. The final report of the Working Group is approximately 250 pages long, with nearly 600 footnotes. The results of this detailed study were conclusions (1) that patent, trademark and trade secret laws need not be changed for the NII to work and grow appropriately, (2) that some limited amendments of the Copyright Act are desirable to take proper account of new digital transmission technology and to clarify the Act's application to such technology's use, and (3) that amendments to the Act should indeed be *limited* to those recommended. Thus, the recommended legislation is brief. It fits easily on only four transcript pages.

The Working Group's conclusions about the need for change -- and about the limited scope of that need -- are sound. They begin from the basic premise that society benefits in the long run when authors are assured that in the short run they can reap

where they have sown. This premise is recognized in the U.S. Constitution's Copyright Clause, Article 1, § 8, cl. 8. It is valid no matter what the medium in which authors' works are fixed and no matter what technology is used to distribute them.

However, the degree of assurance that authors can have about their ability to reap where they have sown depends on the cumulative effect of *both* legal *and* practical barriers to unauthorized copying. Accordingly, technological changes

may present new opportunities for authors, but also create additional challenges. Copyright law has had to respond to those challenges, from Gutenberg's moveable type printing press to digital audio recorders. . . .

Report, p. 7. As the Report notes, the first Anglo-Saxon copyright law, England's Statute of Anne, was itself a reaction to the invention of the printing press.

The NII represents a significant change in technology because it makes possible, at a very low cost, the error-free creation of perfect copies of anything storable in digital form, and the delivery of any number of such copies to anyplace in the world, with less work than would be needed to make and deliver an imperfect non-digital copy next door. As the Report notes:

[J]ust one unauthorized uploading of a work onto a bulletin board . . . -- unlike, perhaps, most single reproductions and distributions in the analog or print environment -- could have devastating effects on the market for the work.

Report, p. 10. One reason why the potential effects of the NII's digital transmissions are far greater than the effects of the photocopy machine and analog tape recorder is that analog duplication always results in some degradation in quality. Digital duplication does not. A 500th generation digital copy is indistinguishable from the original. Moreover, digital transmissions can serve as an unpoliceable substitute for passing physical fixations of a work from one person or place to another.

To ensure that technological change does not undermine legal protection of authors (and, in the long run, enrichment of the public domain), the Working Group made the following proposals, incorporated in H.R. 2441 and S. 1284:

- First, to change the definitions of "distribution," "publication," and "importation," and to add a definition of "'transmit' a reproduction" to the existing definition of "'transmit' a performance," so as to make clear that transmission can be a substitute for passing possession of a physical item from one person to another.

- Second, to provide legal protection to buttress technological protection against copyright violations, by prohibiting importation, manufacture or distribution of devices, products, or services whose primary purpose is to defeat or circumvent technological protection against violation of a copyright owner's exclusive rights.
- Third, to prohibit the falsification, removal or alteration of "copyright management information," defined as including the name and other identifying information of the author of a work or its copyright owner, and terms and conditions for the work's use.
- Fourth, to let libraries make some digital copies that they cannot now legally make, by allowing (1) creation of three digital copies of a work as long as no more than one is in use at any time, and (2) creation of digital copies for purposes of preservation, something not now permitted.
- Fifth, to create an exemption in favor of the visually impaired, allowing non-profit organizations to reproduce and distribute to the visually impaired editions of published literary works when the owner of the distribution right has not entered the market to do so.

The specific language of the proposed legislation might profit from further attention. In some cases, this is because the currently proposed language might be construed in unintended or undesirable ways. In other cases, issues that would be best resolved now may simply have been overlooked. For example, the current definition of "copyright management information" could be read in conjunction with the prohibition against providing false "copyright management information" so as to prohibit authors from using pseudonyms. Yet it is clear that many works have been created under pseudonyms that otherwise might not have been. There is no reason why technological change should bar an author from using a pen-name, as a price for having protection on the NII. A similar issue exists regarding designations of corporate origin when a corporation is not the "author" under the work-for-hire doctrine.

Another potential area where the proposed legislation might benefit from clarification arises because works made accessible online could, under the legislation, be considered "published" if they are considered distributed "to the public." Such works would then be subject to the mandatory deposit requirements of 17 U.S.C. § 407. Application of mandatory deposit requirements to databases that are made available only online, many of which change in content daily or even more frequently, would pose severe practical problems which merit attention and resolution during the legislative process.

Moreover, for all works in digital form deposited with the Library of Congress, how will the Library ensure that these works are not duplicated by patrons of the Library without authorization? A similar concern arises with respect to the proposed new grant of permission to libraries and archives to make up to three digital copies for certain purposes. The legislation ultimately enacted should make it very clear that the proper purposes of such digital copies are strictly limited to preservation or replacement under 17 U.S.C. § 108(b) and (c), and that they do not become a source of further unauthorized reproduction (for example, via additional copies given to patrons).

The proposed exemption for the visually impaired, while proffered in support of a laudable goal, also could benefit from additional attention to its wording. For instance, proposed section 108A fails to extend the exemption it creates to the Library of Congress's National Library Service for the Blind and the Physically Handicapped (NLS) -- perhaps because the section was modeled on an Australian law -- and fails to track the terminology of existing U.S. law addressed to the same goal of helping the blind, namely the Copyright Act's existing Section 710. Thus, where Section 710 refers to "blind and physically handicapped," proposed section 108A refers to "visually impaired," and where Section 710 refers to materials "specially designed for the use of" beneficiaries, proposed section 108A uses the language "intended to be perceived by." Such differences could have unintended substantive effects. Such issues merit further refinement, as the Working Group itself seems to have conceded in footnote 562 to its Report.

S. 1284's and H.R. 2441's proposal of a criminal penalty for circumventing copyright management information in violation of proposed section 1202, but not for circumvention of copyright protection systems in violation of proposed section 1201, is unexplained in the Report. This may be because the Report's discussion regarding criminal offenses focuses on the problem raised by *U.S. v. LaMacchia*, 871 F. Supp. 635 (D. Mass. 1994). However, providing a criminal penalty for violation of proposed section 1201 would be consistent with the Report's discussion at pages 233-234 of existing provisions regarding criminal penalties under the Copyright Act, 17 U.S.C. § 1002, the Communications Act, 47 U.S.C. § 605(e)(4), and NAFTA. It thus seems that a criminal penalty should be provided for violation of proposed section 1201.

Finally, the proposed section 1203 would give a court powers to order the seizure and "the remedial modification or the destruction of any device or product involved in the violation that is in the custody or control of the violator." These remedies are potentially far reaching. For example, security-breaching systems could be software run on a "normal" computer. An order for destruction of the security-breaching "system" might be read to mean the destruction of the computer itself. This would not make sense if the security-breaching software was placed on a company's expensive mainframe computer by an employee, without the company's knowledge, let alone consent. Thus, the seizure and destruction provisions of proposed section 1203(b)(2) and (6) might best be modified to indicate that a court should strongly prefer remedial modification, and resort to seizure or destruction only in situations where remedial modification would not be practical or just.



February 15, 1996

Congressman Moorehead
Chairman, Subcommittee on
Courts and Intellectual Property
2138 Rayburn House Office Building
Washington, DC 20515-6216

RE: HR 2441

Dear Congressman Moorehead:

Thank you very much for requesting my written comments on the above referenced bill.

This is a very important piece of legislation and I want to thank you for taking the initiative of introducing this bill to Congress. I feel that the bill is necessary and will benefit copyright owners greatly in their ability to defend their copyrighted works posted on the internet without authorization, particularly by including "transmission" within the definitions of publication and distribution.

There is one point that has not been addressed which we cannot ignore and that is the role and responsibility of the access provider in regards to infringements posted on the Internet through his system. There must be some responsibility of the access provider should infringing material be posted through his system. It would be unfair to make the service provider responsible for any infringing material posted through his system as monitoring this amount of material would not be feasible and how would he know if the material was infringing or not?

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-2-

However, if the access provider is notified that there is infringing material on his system and he is shown reasonable evidence in this respect ie: a registration certificate for the work or copies of the work showing a valid copyright notice, then he should be required to remove the offending material from the system at the request of the copyright owner.

It would have to be clearly defined what is meant by "access provider" and what would be considered sufficient notice that the material is infringing on valid copyrights. It would be unfair to wait for a court to decide as in the meantime, millions of copies of the material are being posted internationally. Such requirements would have to be within the scope of instant removal upon notification, pending further investigation and possible litigation.

The above are my comments and I hope they prove helpful. I would appreciate being info'd on any future correspondence, etc. relating to this very important piece of legislation, including scheduled hearings on the matter.

Thank you again for your time and energy put into this proposed legislation and addressing this serious situation of copyright protection on the Internet.

Sincerely,


Alison Fine
Director of Legal Affairs



Consumer Federation of America

February 15, 1996

The Honorable Carlos J. Moorhead, Chairman
House Courts and Intellectual Property Subcommittee
B-351A Rayburn Building
Washington, DC 20515

Re: Comments on H.R. 2441

Dear Chairman Moorhead:

We appreciate your request for comments on the NII Copyright Protection Act of 1995. As we have stated before, we believe any changes in copyright laws must keep in mind not only the interest of the works' creator, but that of the public at large.

Consumer Federation of America is a member of the Digital Future Coalition. CFA's views and concerns about the above referenced legislation are contained in the written testimony that is being filed today by a number of members of the coalition.

CFA hopes you and your committee will consider our concerns carefully and proceed with caution on this critically important consumer issue for the information age.

Very truly yours,

Bradley Stillman
Telecommunications Policy Director

The **NHA** National Humanities Alliance

FEB 20 1996

February 15, 1996

The Honorable Carlos J. Moorhead
Chairman
Subcommittee on Courts and Intellectual Property
2346 Rayburn Building
Washington, DC 20515


Dear Congressman Moorhead:

I write on behalf of the 85 organizations comprising the National Humanities Alliance (NHA) to thank you for the invitation to submit written testimony on the NII Copyright Protection Act of 1995. NHA welcomes and appreciates the opportunity to participate in the process by which the legislation is formulated and your leadership in steering Congress toward a balanced and fair bill for both copyright owners and users.

NHA is a member of the Digital Future Coalition (DFC), a diverse, broad-based coalition of 27 national organizations representing educators, libraries, technology companies, consumers, and creators. We have been participating in the development of the DFC written testimony being submitted today. We believe that our concerns with the pending legislation are fully expressed in the DFC testimony and therefore request that you treat it as representing the views of NHA.

My colleagues and I look forward to working with you and your staff on issues that affect scholarship and other activities related to the humanities and copyright law.

Sincerely yours,


John Hammer
Director



COM I

February 20, 1996

The Honorable Carlos J. Moorhead
Subcommittee on Courts and
Intellectual Property
Committee on the Judiciary
U.S. House of Representatives
2346 Rayburn House Office Building
Washington, DC 20515

Re: NII Copyright Protection Act of 1995

Dear Chairman Moorhead:

To supplement my testimony and to echo the testimony of computer industry members concerning the "NII Copyright Protection Act of 1995," H.R. 2441, as a member of the commercial Internet community and a creator of software products designed for Internet communications, I am pleased to offer the following comments in support of this bill.

This bill is the first step in clarifying copyright protections for work "published" on the existing Internet system and future generation of the Information Infrastructure, regardless of technology. As the first truly cogent legislation to assist content providers on the Internet, this bill warrants the wide industry support it has gained.

The sound reasoning from the Working Group on Intellectual Property Rights of the Information Infrastructure Task Force (the "IITF Paper"), with recommended legislation as modified in this bill, speaks for itself. Critics of this bill wrongly claim that the Copyright Act, as most recently interpreted by the courts, offers sufficient protection for copyright owners as content providers for the Internet. However, there is no good reason to delay legislation declaring that the copyright holder's distribution rights in "transmission" over the Internet and, more importantly, over succeeding generations of the national information highway, is protected. To the contrary—the speed at which all forms of digital communication is growing demands that the property rights provided in the Copyright Act keep pace. This bill provides necessary definition and protection for Internet transmissions, and recognizes the need for technological resources to guard protected works.

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The Honorable Carlos J. Moorhead
Subcommittee on Courts and
Intellectual Property
February 20, 1996
Page Two

Certainly, we laud modernizing the library exemptions and exemptions for the visually impaired to keep pace with technology. We also believe the additional exemptions contemplated for providers of Internet services discussed but not adopted in the recommendations of the IITF deserve appropriate consideration. In accord with testimony of industry members before your subcommittee, legislation *is* necessary to absolve Internet service providers of potential liability for unintentional infringement. We agree that the express provisions of this bill suggest that an "innocent" Internet service provider incurs minimal, if any, civil liability and no criminal sanction. The proper analogy for the Internet service provider who neither provides nor controls the content transmitted, but merely delivers communications media, is to the local telephone company who, under local tariff, is responsible for the quantity and quality of service provided—but certainly not responsible to police its content.

As a cogent example of the impossible burden on Internet service providers to *control* content, the Communications Decency Act of 1996 (CDA), 47 U.S.C. § 223 would (if constitutionally valid) require Internet service providers to police content for merely "indecent" communications. While the CDA would apply a particularly onerous burden, the burden on the service provider to enforce copyright protection today is comparable—the penalty for infringement (or any content-based wrong) should fall only on those intentionally or knowingly assisting in communication, not those providing merely the medium of expression.

Aside from the additional protections for Internet service providers suggested by Representative Boucher, again we are pleased to add our voice to the communications industry participants in favor of the remaining parts of this important bill, particularly in enforcing measures for technological protection of works, ensuring that the United States intellectual property rights keep pace with rapidly expanding Information Infrastructure.

Sincerely,


Tushar Patel
President



1996

February 13, 1996

The Honorable Carlos Moorhead
Subcommittee on Courts and Intellectual
Property of the House Judiciary Committee
U.S. House of Representatives
2346 Rayburn House Office Building
Washington, D.C. 20515

**Software
Publishers
Association**

Dear Chairman Moorhead:

On behalf of the Software Publishers Association, I would like to thank you for holding hearings on the National Information Infrastructure Copyright Protection Act of 1995 (H.R. 2441). We commend you for advancing this important national discussion on the future of the Internet and other interactive telecommunications networks and look forward to working with you and the Subcommittee to ensure passage of this important piece of legislation.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Mark Traphagen', is written over the typed name.

Mark Traphagen
Counsel, Intellectual Property and
International Trade Policy

MT/ekb



Software Publishers Association

1730 M Street, NW, Suite 700
Washington, D.C. 20036-4510
Telephone [202] 452-1600
Facsimile [202] 223-8756

February 15, 1996

Rep. Carlos J. Moorhead, Chairman
Subcommittee on Courts and Intellectual Property
Committee on the Judiciary
U.S. House of Representatives
B351-A Rayburn House Office Building
Washington, D.C. 20515

Attn: Mitchell Glazier, Counsel

Re: **National Information Infrastructure Copyright Protection Act (H.R. 2441)**

Dear Chairman Moorhead:

In addition to the testimony of Dr. Garry McDaniels of Skills Bank Corporation on February 7, 1996, the Software Publishers Association (SPA) would like to submit additional comments on topics discussed during the Subcommittee's hearings on the National Information Infrastructure Copyright Protection Act (H.R. 2441).

Distribution by Transmission and Prohibition of Circumvention Devices. SPA supports the objective of H.R. 2441 to confirm that transmissions of computer programs are fully protected by copyright. SPA objects to the unfounded assertions by Dr. Cornelius Pingus of the Association of American Universities that H.R. 2441 is "critically unbalanced," and would make footnotes and other citations subject to payment. Dr. Pingus admitted to Rep. Schroeder later in the hearing that these comments were in fact "an extreme reading" of the bill.

SPA also supports the objective of H.R. 2441 to prohibit the importation, manufacture, or marketing of so-called "black boxes" to circumvent technical protection for computer programs. Dr. McDaniels urged Congress to study whether the 'primary purpose or effect' test could be made less burdensome for copyright owners, and whether adjusting civil remedies and establishing criminal penalties under appropriate circumstances would provide practical deterrents against these devices and services. SPA would be opposed to measures that would delete the phrase "or effect" from this standard because it would create a loophole for devices whose advertised purpose was not circumvention, but are widely marketed or used to circumvent copyright protection.



Conference on Educational and Library Fair Use (CONFU). SPA supports CONFU, and is a member of the CONFU Steering Committee, an ad hoc group of organizations representing libraries and copyright owners that is responsible for planning the agenda and assessing the work plan of the conference. Since September 1994, more than 60 interested organizations representing schools, libraries, and copyright owners have pursued a methodical and exhaustive process to consider over 20 separate topics presented by educational fair use and data communication technologies.

This painstaking work is crucial to winning consensus, and has proved to be the wellspring for two notable accomplishments -- the statutory revisions proposed in the NII Copyright Protection Act (H.R. 2441) for library preservation and exemptions for the blind. As Dr. McDaniels testified, expanding fair use guidelines to permit digital reproduction and network distribution could dramatically affect the business of hundreds of software developers and publishers who market instructional software for K-12, home, special needs, adult, school-to work, vocational and higher education. As a result, the distribution capabilities of the Internet make agreement on other issues more challenging. Nonetheless, SPA believes that CONFU has created a better understanding of the respective needs of schools, libraries, and copyright owners, their mutual interests, and the potential and pitfalls of the NII.

Online Service Provider Liability. SPA wishes to point out the oral testimony by Steve Heaton was incorrect in asserting that H.R. 2441 would change the copyright liability of online service providers. In fact, H.R. 2441 has no provision affecting the potential liability of online service providers, Internet access providers, and bulletin board services for their own direct infringement or indirect infringement by their subscribers.

As Dr. McDaniels testified, SPA believes that efforts to alter their liability are premature. SPA relies on current copyright law -- including liability for indirect infringement -- to protect hundreds of software companies from piracy, and the software industry faces significant new hurdles in fighting software piracy on the information highway. Small to medium sized companies such as Skills Bank cannot afford to monitor the Internet for infringers -- a sentiment echoed by Rep. Bono's observation that songwriters do not want to spend time policing the Internet. SPA is deeply interested in any change in existing law that could make the fight against software piracy more difficult or less effective.

SPA commends the pledge by Mr. Scott Purcell of HLC to work with copyright owners and law enforcement to track down infringers. On the Internet and other networks, software publishers and telecommunications service providers



Software Publishers Association

House Judiciary Subcommittee
February 15, 1995

will be partners, and each should learn to value the contribution the other will make to success on the Internet. SPA cannot agree with Mr. Purcell's assertion, however, that "pirates are easy to track." In fact, the SPA antipiracy program has found that detecting and pursuing software piracy on the Internet and other networks is very difficult.

SPA appreciates this opportunity to offer these additional views on H.R. 2441, and would be pleased to answer any questions the Subcommittee may have.

Sincerely yours,

A handwritten signature in black ink, reading 'Mark Traphagen', is positioned below the 'Sincerely yours,' text. The signature is written in a cursive, flowing style.

Mark Traphagen
Counsel

Enclosure: Five Copies

cc: Dr. Garry L. McDaniels, Skills Bank Corporation

TIME WARNER

Arthur B. Sackler, Esq.
Vice President-Law
and Public Policy

February 15, 1996

The Honorable Carlos Moorhead
Chairman
Subcommittee on Courts and Intellectual Property
Committee on the Judiciary
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Time Warner very much appreciates your invitation to comment for the record on H.R. 2441, the NII Copyright Protection Act of 1995. Time Warner supports this important legislative effort and encourages the Subcommittee's continued focus on it. With some refinements which we will touch upon below, Time Warner believes that H.R. 2441 would provide necessary clarifications to the copyright law in order to adapt it successfully to the unique circumstances presented by the teeming communications and marketplace potential of cyberspace.

Time Warner is one of the world's leading media and entertainment companies, with interests in magazine and book publishing, recorded music and music publishing, filmed entertainment, broadcasting, theme parks, cable television and cable television programming. Through its large holdings of copyrighted works, Time Warner has the potential to be a substantial supplier of content to the National Information Infrastructure.

But Time Warner already is more than a content provider for the Internet. We operate one of the most popular sites on the World Wide Web, Pathfinder, which is experiencing an average of 27 million "hits," or communications contacts, a week. We also are providing Internet access through our cable television company in Elmira, New York, a venture known as Linerunner. And, finally, we have a completely interactive, switched digital video, voice and data "Full Service Network" in place in Orlando, Florida, currently serving approximately 4,000 customers.

It is our view that the principles that first guided the Administration's Working Group on Intellectual Property Rights in its landmark White Paper on "Intellectual Property and the National Information Infrastructure," and have been carried forward into your legislation, Mr. Chairman, are very sound indeed. We wholeheartedly endorse the sense that the American tradition of strong intellectual property protection must be extended to the NII, and that the Copyright Act, with some adjustments, is quite adequate to deal successfully with the new digital environment. With strong copyright protection we, and no doubt other content providers, would

The Honorable Carlos Moorhead
 February 15, 1996
 page 2

feel the confidence necessary to offer our works in a way that will help the NII reach a new level of potential. In essence, we agree with Jack Valenti, President and CEO of the Motion Picture Association of America, of which we are a member, when he testified before this Subcommittee that:

[C]reative works are the jewels in America's trade crown. To protect these delicate products in cyberspace is of transcendent importance. For if you cannot protect what you own, you own nothing.

So, if copyright owners can protect what they own, then they will participate in this new and magnificent medium with fervor.

This legislation is an essential step to update the copyright law in light of the new technology embodied in cyberspace. With this technology sweeping the globe, America, as usual, is in the lead in its development and applications, and in fashioning the rules that will enable it to flourish. The world is watching the effort upon which this Subcommittee has embarked. H.R. 2441, in our judgment, will send an appropriate and strong signal to our current and future trading partners that copyright must be protected and, conceptually, in much the same way as it is now protected in the non-digital media.

Time Warner is a member of the Creative Incentive Coalition. To a very large extent, we share the views of this organization of copyright owners. That extends to CIC's positions, as expressed in comments to you today, concerning circumvention, copyright management information, fair use, library exemptions, publication, exceptions for the visually impaired, criminal infringement, browsing and first sale. We will not impose upon your time by unduly reiterating points of view to which we fully subscribe, but we will add a few brief comments.

Section 1201: The standard of "primary purpose or effect" set forth in Section 1201 is problematic and could greatly complicate the effort to forestall circumvention of technology to protect the rights of copyright owners. Devices that affirmatively defeat or overcome copyright protection systems prevent copyright owners from effectively exercising the exclusive rights granted to them by Title 17. Therefore such devices should be illegal, irrespective of other functions that they might putatively serve. In contrast to devices that have substantial legitimate uses but may also permit unauthorized reproductions of works, the devices at issue in Section 1201 actively attack technical protections legitimately instituted by copyright owners to safeguard their exclusive rights. We believe that the use of these devices rises to a level of more overt and explicit infringement than the copying of works where there are no technological protections. Accordingly, the standard for application of the remedial provisions should be concomitantly lowered.

The Honorable Carlos Moorhead
 February 15, 1996
 page 3

Manufacturers of such devices will always be able to "pitch" them as serving such innocent purposes as improving picture quality to avoid liability under a "primary purpose or effect" test. Attached to this letter is an example of an advertisement of such a device. It boasts of "giving you a crystal clear picture" while also "eliminat[ing] all copy protection." This demonstrates the difficulty that a primary purpose or effect test will pose to copyright owners who seek to ban such equipment. We urge that the words "the primary purpose of effect of which is to" in Section 1201 be replaced by "which is capable of".

Section 1202(b): It appears that the words "copies or phonorecords from which" should be inserted in Section 1202(b)(ii) after "knowingly distribute or import for distribution" so that the phrase reads "knowingly distribute or import for distribution copies or phonorecords from which copyright management information has been altered without authority of the copyright owner or the law,". This would clarify 1202(b)(ii) and make it consistent with 1202(b)(iii).

We also want to provide our thoughts on one of the most controversial issues affecting this legislation: the liability of on-line service providers for infringements. As you may have noted from our description above, Time Warner is not only a content provider, but is also a service provider for the NII. Because we are both a content and a service provider, we recognize there are no easy answers to this very difficult question. We know, on the one hand, that service providers are hardly monolithic in the services that they provide and the ways they provide them. When combined with the overwhelming number of communications daily at web sites, bulletin boards, chat rooms, via e-mail and more, it renders any conventional concept of monitoring and safeguarding against misuse of copyrighted works daunting in the extreme. So, if the conventional standard of strict liability were applied, service providers could reasonably fear that their businesses would be at risk.

On the other hand, we repeat Jack Valenti's wise point of view that "if you cannot protect what you own, you own nothing." An outright exemption from liability for service providers, who control access and who can identify sites and users, will not only discard a perhaps critical tool to assist in the enforcement of copyright rights over the NII, but will open the door to a free-for-all that will almost surely and frequently trample the rights of copyright owners.

Neither extreme is acceptable.

There are a number of tools that can be explored and exploited to help bridge the gap on this issue between content and service providers. Technology, particularly copyright management information and protection systems, we hope will be developed to become a real asset in the fight against infringement. Contracts, insurance, indemnification and other conventional non-legislative, legal methods also can be refined and adapted to play a very real and useful role in addressing this matter.

The Honorable Carlos Moorhead
February 15, 1996
page 4

But ultimately, we believe, these non-legislative approaches will not be enough. Without the certainty and clarity that a legislative regime will bring to this crucial divide, neither side will feel the full confidence necessary to pursue every opportunity to enhance the NII. Both sides will still feel at risk. There is no telling how the next contract will be interpreted in light of idiosyncratic factual circumstances; there is no forecasting how the next District Court or Court of Appeals will apply the law to the next set of facts. With the staggering magnitude of communications in this new environment, both sides understandably may be tempted to take conservative courses that will protect them and their property as much as possible. That would slow the flow of content and impede the development of new services. The Congress simply must step in and provide some guidance.

That is why we warmly endorse the notion of a roundtable or forum for discussion of this critical issue, as suggested by Congressman Bob Goodlatte, and supported by many on the Subcommittee, including yourself, Mr. Chairman. Finding a compromise that will offer sufficient reassurance to both sides will be complicated and time-consuming. But this method, under the aegis of the Subcommittee, should encourage all concerned to move along as expeditiously as possible.

Perhaps it would be best advised to have these roundtable discussions proceed down a separate, but expedited track. Should those discussions not be completed, however, in time to permit an appropriate adjustment to H.R. 2441, it should be part of the understanding of all concerned that H.R. 2441 will proceed nonetheless, and the liability question would be resolved through additional legislation, as soon as possible.

Thank you and we look forward to engaging with you and the Subcommittee, as well as others in the affected industries, in moving H.R. 2441 along and coming to a constructive resolution on the on-line service provider liability issue.

Sincerely,

A handwritten signature in dark ink, appearing to read "Arthur B. Sackler", written in a cursive style.

Arthur B. Sackler
Time Warner Inc.

Attachment

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AMERICAN LIBRARY ASSOCIATION
WASHINGTON OFFICE



1301 PENNSYLVANIA AVENUE N.W., #403 WASHINGTON, DC 20004-1701 U.S.A.
202-628-8410 FAX 202-628-8419 ALAWASH@ALAWASH.ORG

February 14, 1996

Hon. Carlos J. Moorhead, Chairman
Subcommittee on Courts and Intellectual Property
United States House of Representatives
B-351A Rayburn House Office Building
Washington, DC 20515

Re: "NII Copyright Protection Act of 1995" (H.R. 2441)

Dear Mr. Chairman:

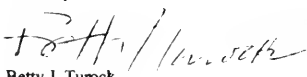
Thank you for your written invitation of January 23rd to submit the American Library Association's comments on the legislation referenced above. ALA regards H.R. 2441 as among the most significant bills before the 104th Congress and appreciates this opportunity both to urge Congress to maintain the careful balance at the core of copyright law, and to propose specific amendments to that end.

In an effort to facilitate the work of your Subcommittee, and to make our comments as broadly representative of the library community as possible, ALA has developed testimony in concert with four other major national library organizations: the American Association of Law Libraries, Association of Research Libraries, Medical Library Association and Special Libraries Association. On behalf of our 80,000 combined members, that testimony is attached.

In addition, Mr. Chairman, ALA also wishes to associate itself with testimony to be submitted to you by the Digital Future Coalition. Together with the more than two dozen other members of the Coalition, ALA respectfully requests that the Subcommittee act with great care before recommending changes in current copyright law to the full Judiciary Committee. The issues raised by, and the potential effects of, H.R. 2441 are many and complex. The shape of the digital future remains unclear. ALA asks simply that Congress take care to assure that all Americans enter that future together.

The nation's libraries stand ready to further assist you in crafting balanced and comprehensive legislation. Indeed, ALA looks forward to appearing before the Subcommittee in future hearings on this most important legislation. We thank you again for the opportunity to submit the attached statement.

Sincerely,


Betty J. Turock
President
American Library Association

Attachment

**STATEMENT OF THE NATION'S LIBRARIES ON H.R. 2441
"NII COPYRIGHT PROTECTION ACT OF 1995"
SUBCOMMITTEE ON COURTS AND INTELLECTUAL PROPERTY
U.S. HOUSE OF REPRESENTATIVES
FEBRUARY 8, 1996**

EXECUTIVE SUMMARY

The following testimony concerning the "NII Copyright Protection Act" (H.R. 2441) has been jointly submitted by five of the nation's principal library organizations on behalf of our 80,000 collective members, and the millions of Americans who use our collections and services. Libraries have taken the lead and worked hard to make the vision of a National Information Infrastructure a reality. **Both the President and the Speaker have acknowledged on many occasions that libraries play, and must continue to play, a critical role in bringing the benefits of digital technology to every American.**

If that result is to be achieved in the digital future, however, it is vitally important to maintain in the Copyright Act the carefully crafted balance between the rights of information owners and users that has served the nation so well in the paper-oriented past. **Libraries categorically reject the argument that H.R. 2441 accomplishes no more than "fine tuning" of the Copyright Act. Rather, if enacted as introduced, H.R. 2441 will shift that historic balance to favor copyright owners' desires over the needs of consumers and users.** Perhaps most significantly, "fair use" under Section 107 of the Copyright Act will become a hollow right to the detriment of American industry, consumers, scholars, students and other library users.

Libraries believe that **at least 3 important proposals are missing from the pending legislation:**

- ◆ H.R. 2441 proposes to amend Section 106 of the Copyright Act to "clarify" that the rights granted to copyright owners apply to electronic transmissions. However, no parallel change in the explicit scope of "fair use" (described in Section 107) is suggested. **Accordingly, in order to maintain the balance at the core of copyright law, Section 107 also should be amended to refer specifically to electronic transmissions.**
- ◆ Legal precedent is minimal and mixed as to whether providers of on-line information services (which include libraries and educational institutions) should be liable for the copyright infringements of their users, and under what circumstances such providers must remove allegedly infringing material from their systems. Librarians feel strongly that the uncertainty present in this legal environment, coupled with the potential for substantial financial liability, will chill the development of on-line information systems at a time when their expansion must be actively fostered. **Accordingly, librarians support modification of H.R. 2441 to make clear that only the party who knowingly placed infringing material on-line or knowingly retransmitted such material should be legally liable for those actions.**

- ◆ **Our library associations also support the efforts of the Digital Future Coalition to craft an amendment to Section 109 of the Copyright Act to update the "First Sale Doctrine" (codified at Section 109 of the Act) for the digital environment. Such language, now being developed with DFC, should make clear that -- just as is now the case with print materials -- the permission of the copyright owner need not be obtained by the lawful purchaser of a copyrighted work before the purchaser transfers that work to another person without retaining a copy.**

Libraries are also specially concerned with 3 current provisions of H.R. 2441:

- ◆ **Expansion of the "distribution right" codified in Section 106 of the Copyright Act to expressly include all "transmissions," coupled with vague and unbounded protection for copyright encryption systems in proposed new section 1201 of the Act, will effectively eliminate important limitations on the rights of copyright owners that are now part of the statute. It is those Congressionally-approved limitations which make many educational and private recreational uses of copyrighted information (such as home video and audio recording) legally possible. Moreover, as now written, the proposed revisions to Section 106 of the Act threaten to inadvertently neutralize the educational activities currently authorized by Section 110 of the statute and often supported by libraries.**
- ◆ **Protection of "copyright management" information and licensing systems with sweeping new civil and criminal penalties (again viewed in tandem with the over broad, device-based restrictions proposed in new Section 1201) threatens to replace society's currently balanced regime of shared information resources. In its stead, a new, commercially grounded philosophy will "trump" the Copyright Act and all information -- no matter how small the unit -- can and will be licensed or otherwise accessed only pursuant to contract. The browsing, non-commercial sharing, and limited reproduction of works for educational and scholarly purposes now protected by statute will be available only to those able to pay for access to information. Such a regime threatens to make America a nation of information haves and have-nots.**
- ◆ **Proposed modification of the "library exemptions" of the Act (codified at Section 108) to facilitate library digital preservation efforts are well intentioned. They require technical corrections, however, to provide libraries with the maximum flexibility possible in preserving the nation's cultural heritage and making it available to students and scholars.**

Librarians look forward to working actively with Congress to craft balanced and farsighted legislation updating the Copyright Act for this exciting digital age.

Statement on Behalf of

**The American Association of Law Libraries,
The American Library Association,
The Association of Research Libraries,
The Medical Library Association, and
The Special Libraries Association on**

H.R. 2441

NII Copyright Protection Act of 1995

**Before the Subcommittee on Courts and Intellectual Property
of the
House Committee on the Judiciary
104th Congress, 2d Session**

February 8, 1996

**Statement on Behalf of the
Nation's Libraries on**

H.R. 2441

**NII Copyright Protection Act of 1995
Before the Subcommittee on Courts and Intellectual Property
of the
House Committee on the Judiciary**

104th Congress, 2d Session

February 8, 1996

As organizations representing the nation's libraries and librarians, the American Association of Law Libraries, the American Library Association, the Association of Research Libraries, the Medical Library Association, and the Special Libraries Association are pleased to comment on H.R. 2441, the "NII Copyright Protection Act of 1995." Taken together, we represent thousands of libraries and millions of library users throughout the nation, and we speak directly for our 80,000 library association members.

Librarians throughout the United States are keenly aware of the growth and development of the National Information Infrastructure. In fact, many libraries have taken the lead and worked hard to make the vision of the NII a reality by providing the means to make it available and accessible to their communities. As organizations dedicated to providing access to information in all formats, libraries understand well the importance of insuring that creators and information providers have an appropriate incentive to make their works available over the

Network. But librarians also believe that as we move into the electronic environment, it is vitally important to maintain in the Copyright Act the carefully crafted balance between the rights of creators and the rights of information users that has served us so well in the traditional paper environment.

We recognize the need for updating selected provisions of the Copyright Act. Librarians are concerned, however, that if enacted as introduced, the pending legislation would have significant negative consequences for the future of education, research, and scholarship in the United States. Specifically, the bill gives a high level of control over electronic information to copyright proprietors, without similarly protecting and advancing the needs of information users in the electronic environment. As a result, we believe that H.R. 2441 would shift the historic balance to favor copyright owners over consumers and users.

In the current rapidly changing information environment, we are pleased that Congress is developing a digital update to the Copyright Act and beginning the discussion about how to meet the challenges of the digital age. At the same time, we look to Congress to preserve the balance that has promoted education, research, and creativity throughout the nation. In this statement we will: (1) explain why we believe the legislation, as it stands now, will dramatically shift the balance between creators and users and is likely to have significant unintended consequences, (2) discuss the need for a parallel digital update to the fair use provision and the library section of the Act, and (3) discuss the importance of resolving the issue of online provider liability, at least where the provider had no involvement in or knowledge of the allegedly infringing activity.

We understand that Congress is anxious to move forward on this legislation this term, and we would be pleased to work with Congress to develop solutions to these issues. As we move forward into the digital era, appropriate incentives must be provided for the creation of new works, while the needs of the public at large, students, scholars, and other researchers are also accommodated. One set of adjustments to the Copyright Act need not and should not be made without the other.

The proposed legislation will greatly strengthen the rights of copyright proprietors in the electronic environment, providing them with near total control over the reproduction, distribution, and use of their works. This level of control is far beyond what they enjoy today and will substantially raise the cost and reduce the flow of information that has fueled growth in research, education, and creativity in American society.

The genius of United States copyright law is that it balances the intellectual property rights of authors, publishers, and other copyright owners with society's need for the free exchange of ideas. The first sale doctrine, for example, allows libraries to share their resources with many individuals by lending items they have purchased or otherwise lawfully acquired. The American tradition of free circulating libraries is an important element of American democracy because it ensures that anyone may gain access to information regardless of ability to pay.

In contrast, the current legislative proposal places undue emphasis on the commercial exploitation of individual works by giving the owners of those works complete control over their

electronic distribution. While owners now have exclusive control over the initial distribution of their work (See *Harper & Row Publishers v. Nation Enterprises*, 471 U.S. 539, 551 (1985).), once they do decide to make their works available, their rights are circumscribed by other elements of the law. These elements include the first sale doctrine in Section 109 of the Act, the fair use doctrine codified in Section 107, and the limited exemptions granted to libraries and educators under Section 108, among others. The expansion of the distribution right to include transmissions, coupled with the development of systems for the encryption and licensing of electronic works, essentially eliminates the limitations on the rights of copyright owners and gives them complete control, not only of the original decision to distribute, but of all subsequent distributions as well. This change sets the stage for a complete reversal of the library model of shared resources and moves us toward a completely commercial model. This will mean that a publisher may charge for every use of even the smallest element of a work, including even looking up a word in a dictionary. This model, if codified, will have important social implications that must be considered as the legislation is crafted.

Although the expansion of the distribution right to explicitly include transmissions may seem to some to be a modest change, its incorporation into the statute is likely to have unintended consequences, especially as technology continues to evolve. It is said that the inclusion of this change is merely a clarification of existing law because those courts that have considered the issue have correctly found certain transmissions to be infringing, even without

specific language in the Act.¹ But if the case law is developing in this way, then it may not be necessary to make the Act more explicit. If Congress does wish to clarify the law in this way, then it must ensure that it does not even unintentionally reduce the rights of educators, librarians, and other information users.

An example of an unintended consequence relates to Section 110 of the Act. That section exempts certain performances from liability, including among others, performances related to the instructional activities of educational institutions where a transmission is made primarily for reception in classrooms or where students cannot be present in a classroom because of disabilities or other special circumstances. Notably, this section exempts such transmissions from violating the performance right of the copyright owner. But if the copyright owners' transmission right is part of the distribution right instead of the performance right, then activities permitted now under Section 110 might well be found to violate the distribution right, even though they are explicitly exempted from violating the performance right. Such a change would have serious consequences for all of the activities covered by Section 110. It would be particularly devastating for a vital sector of education today — distance learning — a movement that is particularly important in the many states with large rural areas that are now being served by such programs.

¹ *Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights*, Information Infrastructure Task Force (September 1995), hereinafter referred to as the "White Paper", 67 - 69, citing *Playboy Enterprises Inc. v. Frena*, 839 F.Supp. 1552 (M.D. Fla 1993) and *Sega Enterprises Ltd. v. MAPHA*, 857 F.Supp. 679 (N.D. Cal. 1994), where violations were found of the distribution right and the reproduction right, respectively. See also the White Paper at 214 *et seq.*

There are other parts of the statute where we believe there would be similar unintended consequences. In the paper environment, for example, the first sale doctrine has been essential to the most basic activities of libraries -- the circulation of books. If Congress passes a digital update to the Copyright Act, we believe it should also update Section 109 of the Act as well. Although we are not submitting proposed language for that section at this time, we are working with the Digital Future Coalition and other organizations to craft an appropriate amendment. We would be pleased to forward such language to you shortly, and to discuss its implications for libraries at that time.

Beyond unintended consequences, the rights of copyright owners are significantly expanded in the proposed legislation through the bill's support of copyright management systems, including systems for the encryption and licensing of works. When implemented and enforced by the proposed criminal sanctions in the current bill, such systems will give copyright owners total control over all transmissions and other electronic distributions of their works, without regard to any other policies in the Act. With such high level control mechanisms in place, licensing will be the online equivalent of a subscription, substituting contract law for the balance of rights so carefully crafted by this Congress.² Fair use will disappear. No one will be able to browse through an electronic work. No one will be able to share an interesting item with a friend. No one will be able to make a copy of a work or a portion of work to support their research or scholarship unless that person complies with the terms required by the proprietor.

² *Id.* at 88.

This is not a minor change. It will radically change the way our information delivery systems work and raise the cost of information for everyone, including school children, teachers, researchers and scholars.

With Congressional endorsement of encryption systems as a technological check on unlicensed use, whatever other policies are included in the Copyright Act will become essentially irrelevant because the licensing and encryption scheme will override them. The bill, for example, does not now require that such systems be built with the possibility of a fair use override. Without any restrictions imposed upon them, copyright owners will be able to dictate who may use a work and on what terms. That is something they have never been able to do before. The terms of the owner will almost certainly include some form of payment for every use of a protected work. Such a result will take us a very long way towards becoming a nation of information haves and information have-nots. Those who can afford to pay will get the information they need; those who cannot pay will have to do without.

Encryption systems also raise serious questions of privacy, an issue about which the American public is likely to be concerned. These systems will require the development of a mechanism for the tracking of every use of a particular work, together with a system for charging individual readers for whatever they use. Such a system will require a database that tracks the reading habits of every American. Many Americans will be troubled by the existence of such a database, considering it -- as they should -- an unwarranted intrusion on their privacy that has a chilling effect on what they choose to read.

In developing a digital update to the Copyright Act, the existing balance should be maintained by coupling provisions that benefit copyright owners with similar provisions for the benefit of information users. From the Library perspective, the need for this balance is particularly acute in the Fair Use (Section 107) and Library provisions of the Act (Section 108).

Fair use and other related provisions of the Act are the essential means by which teachers teach, students learn, and researchers advance knowledge. As Justice Sandra Day O'Connor noted in *Feist v. Rural Telephone Service Co.*:

The primary objective of copyright is not to reward the labor of authors, but "[t]o promote the progress of science and useful arts." To this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work. The result is neither unfair nor unfortunate. It is the means by which copyright advances the progress of science and art.³

Each year, millions of researchers, students, and members of the public benefit from access to library collections. This access is supported by fair use, the right of libraries to reproduce materials under certain circumstances, and other related provisions of the copyright law. These provisions are currently limitations on the rights of copyright owners. Our concern is that they may become irrelevant in a regime where licensing and encryption substitute for purchases and subscriptions. The loss of these provisions in the emerging information infrastructure will greatly harm scholarship, teaching and the operations of a free society. Fair use, the library exemption, and other relevant provisions of the Act must be preserved. Copyright must not become an absolute monopoly over the distribution of, and access to, copyrighted information. In the age of information, a diminished scope of public rights will lead

³ 499 U.S. 340, 349 (1991).

to an increasingly polarized society of information haves and have-nots.

Over the last year, our organizations have participated actively in the Conference on Fair Use, convened by the Working Group on Intellectual Property to see if interested parties could agree on electronic fair use guidelines similar to those that were agreed to at the time the Copyright Act was passed.⁴ Regrettably, some of those efforts now appear to have failed. Since the Working Group-sponsored meetings have failed to produce an agreement on electronic fair use guidelines, we believe that Congress must ensure that robust fair use in the electronic environment is an integral part of the proposed revision of the Act.

As Congress is now considering a digital update to the rights of copyright owners, it is essential to also consider a similar update to protect the rights of users. With regard to fair use and the library exemptions, these changes are not difficult. Just as the distribution right is being amended to include transmissions, we strongly urge that the Section 107 provision on fair use be similarly amended. Specifically, we recommend that "transmission" be added to the introductory sentence, as follows:

Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phono records, by transmission, or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research is not an infringement of copyright. (New language underlined.)

This simple change will help assure that the universally endorsed goal of preserving and

⁴ See White Paper at 83 *et seq.*

protecting fair use will carry forward -- in policy and practice -- into the electronic environment.

It has been suggested that the notion of fair use will somehow automatically expand to include the new technologies. But, it has also been argued that fair use and other statutory exemptions were premised on the technology of a certain time. We have never accepted that suggestion; the Act is, with perhaps only one exception -- for preservation of library materials -- technology neutral. Nonetheless, just as the copyright owners have suggested that ambiguity as to the transmission right necessitates its inclusion in the law, so too we suggest that the law should make it explicit that electronic uses that meet the other criteria of the Act might be found to be fair use. It was reassuring that Richard Robinson, testifying on behalf of the AAP², stated that fair use applied to both analog and digital formats. We assume, therefore, that they will have no objection to our clarifying proposal.

As the proposed legislation now stands, it will strengthen the rights of copyright proprietors in the electronic environment far beyond what they have today in the print environment. It will provide them with nearly total control over the reproduction, distribution, and use of their works. This level of control will substantially raise the cost and reduce the flow of information that has fueled growth in research, education, and creativity in American society. It is essential that before the bill is passed, it restore the previously existing balance through an amendment to Section 107 such as the one we have proposed that will carry fair use forward into

² Hearing on H.R. 2441, February 8, 1996.

the electronic age.

The library community agrees with the conclusion of the White Paper and the sponsors of the legislation that a digital update to Section 108 of the Act -- the section exempting certain library activities -- is needed. The White Paper concluded:

[T]he Working Group believes that the law must preserve the role of libraries and archives in the digital era.⁶

To achieve that objective, minor amendments to Section 108 are needed. We are pleased that the drafters have tried to accommodate the needs of libraries, particularly for the purpose of preservation of historical material. The preservation problem is nothing short of a national intellectual and historical crisis. The life expectancy of paper made since 1820 is only 50 to 75 years. In many cases, the copyright laws protect works longer than the physical objects are likely to survive. Libraries are working to meet this challenge through the use of microform and digital techniques to make three copies of historic works: an archival copy, a master from which other copies might be made, and a use copy. The intent of the proposed amendments is to make these activities permissible under the Copyright Act.

We believe, however, that the pending legislation, as drafted, will not actually achieve its intended purposes. The bill accommodates the needs of libraries to make three copies of a work for preservation purposes. We believe, however, that the reference to three copies should be

⁶ White Paper at 226.

placed in sections (b) and (c) only, not in Section (a) as currently proposed. On the other hand, the drafters have accommodated the need to use digital techniques by adding the word "digital" only to the two preservation sections, (b) and (c). Such a change will perpetuate the anomalous situation of having the preservation sections refer to specific formats. One of the goals of the 1976 Act was to make it format neutral, and the preservation sections are one of the few places where that goal was not achieved. The result is that an amendment is now needed. Congress should now make these sections technology neutral by simply striking the words ("in facsimile form") from sections (b) and (c) rather than adding the word "digital". These changes would make the sections read as follows:

(a) ~~Except as otherwise provided~~, notwithstanding the provisions of section 106, it is not an infringement of copyright for a library or archives, or any of its employees acting within the scope of their employment, to reproduce no more than one copy or phono record of a work, or to distribute such copy or phono-record, under the conditions specified by this section, if—

[Subsections (1) and (2) remain unchanged];

(3) the reproduction or distribution of the work includes a notice of copyright if such notice appears on the copy or phono record that is reproduced under the provisions of this section.

(b) The rights of reproduction and distribution under this section apply to ~~one copy~~ three copies or phono records of an unpublished work duplicated in ~~facsimile form~~ solely for purposes of preservation and security or for deposit for research use in another library or archives of the type described by clause (2) of subsection (a), if the copy or phono record reproduced is currently in the collections of the library or archives.

(c) The right of reproduction under this section applies to ~~one copy~~ three copies or phono records of a published work duplicated in ~~facsimile form~~ solely for the purpose of replacement of a copy or phono record that is damaged, deteriorating, lost, or stolen, or if the existing format within which the work is stored has become obsolete, if the library or archives has, after a reasonable effort, determined that an unused replacement cannot be obtained at a fair price.

These changes will allow libraries to meet the preservation challenge and to use any available format to carry out the activities authorized by the section. Such a digital update is essential to “preserve the role of libraries in the digital era.”

Congress should resolve the issue of online service provider liability by amending the law to provide that such providers are not liable for the acts of their users, where they have no actual knowledge of an alleged infringement.

Increasingly, libraries throughout America are providing their communities with access to digital information through the use of the National Information Infrastructure. It is virtually impossible, however, for a library or any other provider to know that everything passing through its system, or even that everything loaded onto its system by a user, is in the public domain or has been placed there with permission.

Libraries have repeatedly stated that they support the basic goals of the copyright system, and that they desire to comply with it. But the content of the Internet changes hourly. It is simply not possible to review the content of every site with which one might be connected on a minute-by-minute basis. Similarly, if a library or educational institution provides the ability for their users to post information to the Internet, they cannot review each and every posting for content. That would be akin to opening every letter that passed through the post office. It is not only impossible; most would find such a review unethical.

This is not to say that there should be no liability for the distribution of infringing material over the National Information Infrastructure. We do believe, however, that the party who should be liable is not the innocent library through whose computer the information may have passed. This would shift the burden of discovering an infringement from the copyright owner, where it has traditionally rested, to a library or other neutral carrier, which might have no

involvement with the infringing activity at all. Rather, we believe that liability should rest exclusively on the person who copied and placed the infringing material on the NII in the first place.

This is a critical time in the development of the National Information infrastructure. Imposition of liability on innocent information providers will have a devastating effect on the future development of the Network. Congress should resolve this issue now by removing liability from the innocent carrier and placing it on the culpable party.

* * *

The Library community is pleased to have had the opportunity to present this statement to the Committee. We hope to be able to work with you to further consider these issues and to identify or refine the proposed solutions.

Addendum
Library Recommendations
for a Digital Update to the Copyright Act

Proposed Amendment to Section 107:

Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phono records, by transmission, or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research is not an infringement of copyright.

[The remainder of Section 107 would be unchanged.]

Proposed Amendment to Section 108:

(a) Except as otherwise provided, notwithstanding the provisions of section 106, it is not an infringement of copyright for a library or archives, or any of its employees acting within the scope of their employment, to reproduce no more than one copy or phono record of a work, or to distribute such copy or phono-record, under the conditions specified by this section, if--

[Subsections 1 and 2 remain unchanged];

(3) the reproduction or distribution of the work includes a notice of copyright if such notice appears on the copy or phono record that is reproduced under the provisions of this section.

(b) The rights of reproduction and distribution under this section apply to ~~one copy~~ three copies or phono records of an unpublished work duplicated ~~in facsimile form~~ solely for purposes of preservation and security or for deposit for research use in another library or archives of the type described by clause (2) of subsection (a), if the copy or phono record reproduced is currently in the collections of the library or archives.

(c) The right of reproduction under this section applies to ~~one copy~~ three copies or phono records of a published work duplicated ~~in facsimile form~~ solely for the purpose of replacement of a copy or phono record that is damaged, deteriorating, lost, or stolen, or if the existing format within which the work is stored has become obsolete, if the library or archives has, after a reasonable effort,

determined that an unused replacement cannot be obtained at a fair price.

The organizations endorsing this statement include:

The American Association of Law Libraries is an organization with over 5,000 members who respond to the legal and government information needs of lawyers and judges, law students and faculty, courts and legislatures, and members of the general public.

The American Library Association is a non-profit educational organization of 57,000 librarians, library educators, library trustees, and other friends of libraries from public, school, academic and research, state, and specialized libraries, and schools of library and information science.

The Association of Research Libraries is a not-for-profit organization representing 119 research libraries in the United States and Canada. Its mission is to identify and influence forces affecting the future of research libraries in the process of scholarly communication. ARL programs and services promote equitable access to and effective use of recorded knowledge in support of teaching, research, scholarship, and community service.

The Medical Library Association was founded in 1898 and is a professional organization of more than 5,000 individuals and institutions in the health sciences information field. MLA members serve society by developing new health information delivery systems, fostering educational and research programs for health sciences information professionals, and encouraging an enhanced public awareness of health care issues. Through its programs and publications, MLA encourages professional development of its membership, whose foremost concern is dissemination of health science information for those in research, education and patient care.

The Special Libraries Association is an international professional association serving nearly 15,000 members of the information profession, including special librarians, information managers, brokers, and consultants. The Association has 56 regional/state chapters in the U.S., Canada, Europe, and the Arabian Gulf States and 27 divisions representing subject interests or specializations. Special libraries/information centers can be found in organizations with specialized or focused information needs, such as corporations, law firms, news organizations, government agencies, associations, colleges, museums, and hospitals.

**STATEMENT OF MEMBERS OF THE DIGITAL FUTURE COALITION ON H.R. 2441:
The NII Copyright Protection Act of 1995**

Submitted to the Subcommittee on Courts and Intellectual Property of
the Judiciary Committee of the United States House of Representatives

February 15, 1996

Introduction

The undersigned members of The Digital Future Coalition welcome this opportunity to present their views on H.R. 2441, the "National Information Infrastructure Copyright Protection Act of 1995." We hope this submission may contribute to assuring that the Congressional debate over how the law of intellectual property can and should change in a digital age is thorough, broad, and balanced.

The DFC is a diverse coalition of national groups representing copyright holders and users of copyrighted materials, including: educators, educational administrators, librarians, technology companies, civil liberties organizations, consumers and creators. One thing the undersigned DFC member groups share is a vital interest in the continued development of the NII as a medium for education, recreation, research, commerce and creative exchange. The constituents of the DFC use the NII, but they also participate in the construction of the NII, as well as providing content to the NII. Thus, we support the overall goal of H.R. 2441: to provide a legal environment in which the NII can continue to flourish. As we wrote in our letter to Chairman Moorhead, on Nov. 9, 1995,

[T]he members of the DFC are committed to supporting proposals which promote innovation in the information and technology industries, personal privacy in electronic communication, and public access to information resources, as well as appropriate protection for copyrighted content in the digital environment.

The American copyright system has always attempted to balance the interests of creators, distributors, and consumers of information: the different groups with a shared interest in "the progress of Science and the Useful Arts." This principle of balance is the source of extraordinary achievements on the part of our creative communities, our information technology industries, and our educational institutions. The particular balance of interests which has been struck in the law of copyright in the print environment, represents the outcome of years of legislative and judicial "fine tuning," and should not be discarded lightly.

Our primary concern about H.R. 2441 in its present form is that it fails to sustain the principle of balance, placing a nearly exclusive emphasis on the protection for copyrighted content, and doing so at the expense of promoting innovation, privacy, education and public information access. This emphasis is a matter of both commission and of omission. Thus, we are concerned with the specific provisions of the bill itself -- but we are equally concerned that it leaves many crucial issues, such as the place of "fair use" in the digital environment, unaddressed.

The provisions of H.R. 2441 are not mere "minor adjustments" to the law of copyright. As we will indicate below, they are major proposals which -- if enacted as written -- will undermine the delicately calibrated balance of interests which characterizes our law of copyright. Once lost through piecemeal legislation, this traditional balance will not easily be restored. Our copyright system is a unique and complex web, and the various sections of the law are intricately woven together. Any legislation which focusses on only one part of the fabric, to the exclusion of others, runs the risk of unraveling the whole.

The Transmission Right: Upsetting the Balance in Copyright Law

At the heart of H.R. 2441 is a series of amendments which would significantly enhance the level of protection afforded to copyrighted content on the NII by recognizing "transmission" as an aspect of the copyright owner's exclusive right "to distribute copies and phonorecords" to the public under Sec. 106 of the Copyright Act. In H.R. 2441, "transmission" is defined globally, so as to reach practically every electronic information transaction on the NII. While it is true that only those "transmissions" which constitute distributions to the "public" would fall within the ambit of the new provisions, copyright precedents indicate that any communication outside the immediate family circle could be considered a "public" one. Indeed, under the legal regime established by H.R. 2441 the communication of a single item of information over the Internet would involve tens or even hundreds of transmissions, as the digitized data passes from one server to another on the way to its destination.

Clearly the problem of electronic piracy is a serious one. However, we are not convinced that such a radical change to the law is required in order to deal with it. We view the current proposal as one which would have the effect of dramatically increasing the potential copyright infringement liability for individuals, companies, and institutions as they go about their normal activities in cyberspace. We are concerned that as currently drafted, H.R. 2441 could delay the emergence of new commercial technologies which "add value" to digital information, frustrate competition in the market for digital goods and services, stifle innovation and job creation in the private sector, threaten the growth of new educational technologies, reduce students' and educators access to information, and erode traditional concepts and practices of "fair use."

The "Transmission Right" and "Fair Use"

Among the most precious doctrines of American copyright law is that of "fair use," currently codified in 17 U.S.C. Sec. 107. This limited exemption from infringement liability applies to certain beneficial uses of copyrighted works which, in a more technical analysis, might be found to infringe. In the scheme of American copyright, "fair use" safeguards our collective interest in the flow of information -- which is, in turn, a source of economically valuable knowledge. "Fair use" provides the basis for many of our most important day-to-day activities in scholarship and education. It assures creators a reasonable degree of access to source material. And it facilitates innovation by technology companies which strive to offer products and services designed to promote connectivity. As the economic and cultural potential of the NII is gradually

revealed, it is becoming clearer that at no time in the history of American copyright has the maintenance of a robust "fair use" doctrine been more important than it is at present.

Thus, it is critically important to extend to the digital environment the privileges that we enjoy today. Congress should assure that any legislation which enhances the rights of copyright owners in the networked environment also reaffirms the principle of fair use. It is not yet clear whether the Conference on Fair Use (CONFU) will in fact produce any useful consensus recommendations on the application of "fair use" in cyberspace. Even if it does so, those recommendations would (at best) govern only a part of the overall range of uses which currently fall within Section 107.

The "Transmission Right" and the "First Sale" Doctrine

The "first sale" doctrine is one of the special engines which drive the free flow of information in today's copyright laws. Under it, the owner of a copy of a protected work is free to give, sell or (subject to certain limits) otherwise transfer possession of it to another individual, without the permission from or payment to the copyright owner. "First sale" makes possible, among other things, used book shops, video rental stores, and free public lending libraries. But its applicability in cyberspace is in doubt. It will be important to legislate affirmatively to preserve first sale in connection with digital transmissions -- and thus to assure that users of new technologies enjoy the same privileges which book buyers and video buyers now enjoy.

The "Transmission Right" and Service Provider Liability

Many of the constituents of the DFC -- including businesses, schools and libraries -- are involved in building the National Information Infrastructure by developing the software and hardware necessary to access the Internet, and by providing others with Internet access services. In a networked environment where most -- if not all -- electronic information transactions are potential infringements of a ubiquitous "transmission right," commercial and non-commercial access providers have legitimate concerns about the possibility that they will be held liable, either directly or as vicarious and/or contributory infringers, for unauthorized transmissions of copyrighted material initiated by subscribers to listserves, bulletin boards, and on-line services.

Several recent decisions have held service providers directly liable for infringing activities engaged in by their subscribers. Moreover, existing copyright law principles relating to third party liability, which have been developed to apply to the use of analog works (books, movies, records, and so forth) are a poor fit for the new digital media. And if service providers are called upon to identify and stop subscribers' infringing activities, they would be required to monitor those activities as well, at whatever cost to the privacy interests of all who rely on network communications. We urge that, in connection with any legislation creating a new "transmission right," Congress also enact clear and certain rules governing service provider liability.

The "Transmission Right" and Educational Exemptions

Among other things, the creation of a general "transmission right" under Sec. 106(3) could seriously impair the development of educational technologies which permit the delivery of lessons to remote classroom sites, including those in rural areas, through electronic communications links. Thus, for example, students today enjoy the benefits of "distance learning" technology in large part because of the carefully-crafted provisions of Sec. 110(2) of the Copyright Act of 1976, which allow for the "performance or display" of certain works by means of "transmission" in educational settings; these provisions, however, would not apply to "distribution" by means of "transmission" under H.R. 2441 -- and the effects on the burgeoning "distance education" movement could well prove devastating. Before enacting H.R. 2441, Congress should assure that such unintended consequences will not follow.

The "Transmission Right" and Library Exemptions

We agree with the sponsors of the legislation that a digital update to Sec. 108 of the Copyright Act -- the section exempting certain library activities -- is needed. To achieve that objective, minor amendments to Sec. 108 are required. We are pleased that the bill attempts to accommodate the needs of libraries and researchers, particularly with respect to the purpose of preservation of historic material. This issue is a crucial one today, when the preservation problem has emerged as nothing short of a national intellectual and historical crisis.

We support the revisions to Sec. 108 proposed by the American Association of Law Libraries, the American Library Association, the Association of Research Libraries, the Medical Library Association, and the Special Libraries Association, referred to in Register of Copyrights' Marybeth Peters testimony on H.R. 2441. These revisions would make Sec. 108 "technology-neutral" by striking the words "in facsimile" form in paragraphs (b) and (c), rather than adding the word "digital" as the present bill would do. These changes would allow libraries to meet the preservation challenge and to use any available format to carry out the activities authorized by Sec. 108. Such a digital update is essential to preserve the role of American libraries in the next century -- and beyond.

New Chapter 12: Copyright Carried Forward by Other Means

We recognize the importance of some technological measures to secure the NII against electronic copyright piracy. Indeed, some believe that the availability of new techniques and devices for "hardening" proprietary information against unauthorized access may prove as important a source of security for content providers as will the availability of new legal rights against infringers. But there is concern about the unwarranted sweep and breadth of the provisions of H.R. 2441 which prohibit and penalize various kinds of interference with "Copyright Protection and Management Systems." In effect, if not by design, these provisions could have the effects of giving copyright owners *de facto* monopolies in material to which copyright protection does not extend, while forestalling the development or commercialization of precisely the kind of innovative new technologies which our laws of intellectual property should promote. At the same time, these provisions could impose severe burdens on the ordinary, otherwise lawful, commerce in intellectual property.

Section 1201's "Anti-Circumvention" Provision

The new section 1201 of the Copyright Act proposed by H.R. 2441 is far from a minor adjustment to current law. The thrust of the proposed section is to prohibit the importation, manufacture and distribution of devices that circumvent a system or process that prevents illegal copying of protected works. While we support in principle the goal of eliminating copyright piracy, any "anti-circumvention" provision must be carefully drafted so as not to prevent legitimate activities. We believe that proposed Sec. 1201 creates such a heavy burden of justification that, as a practical matter, many technologists and developers will simply avoid making or investing in technologies which could lead to legal entanglements.

As a result, under the regime of proposed Sec. 1201 information consumers with legitimate reasons to seek access to decryption technology could well find that it was simply unavailable. Effective access to public domain materials would be restricted, as would consumers' practical ability to make lawful fair use of copyrighted materials -- a right recognized in the Supreme Court's decision in Sony v. Universal. Likewise, companies wishing to make lawful back-up copies of purchased, copy-protected software programs, as they are permitted to do under Sec. 117, might find their ability to do so frustrated by the unavailability of the necessary technology.

Section 1202's Prohibitions for the Integrity of Copyright Management Information

Under the terms of this section, and the associated remedial provisions of Sections 1203 or 1204, it is both a civil wrong and (in some cases) a criminal offense to knowingly provide or distribute false "copyright management information," or otherwise to tamper with such digitally embedded records. In general, we support the development of accurate copyright management information (CMI) systems, and we support the inclusion of entries about the actual authorship of works, as well as data about copyright ownership, in any definition of CMI. But we are concerned that the reach of Sec. 1202, like that of Sec. 1201, is over-broad. Imagine, for example, the case of a wholesaler who receives a shipment of digital copies from the manufacturer, and is aware that since the time those copies were made, the ownership of the work incorporated in them has changed hands. Under Sec. 1202(a), the wholesaler is flatly prohibited from redistributing those copies unless it makes changes in the "copyright management information," an operation perhaps involving considerable expense and certainly involving considerable delay.

Conclusion

We support the concept of legislation to update the copyright law to meet the challenges of the digital networked environment and we welcome the opportunity to participate in the process by which it is formulated. But we have many concerns about the "NII Copyright Protection Act of 1995" as currently drafted. Legislation in the form of present H.R. 2441 could create more problems than it would solve. As clear from the two days of hearings conducted by the Subcommittee on Courts and Intellectual Property (February 7-8) many believe that the bill requires revision. This will require a thorough reconsideration both of the provisions it contains and of those it omits.

We believe that a deliberate process of copyright law revision is more likely to produce results which will withstand the tests of time and the marketplace than a process driven by a false sense of urgency. To date, we have heard only one argument that purports to explain why there is a need to act first and deliberate later, so to speak. It is the claim that some content providers are withholding their works from the NII, and thus from digital information users, until such time as they can be assured of higher levels of legal and technological protection against piracy. But the case for quick action on this basis has yet to be made: A review of the cultural riches available in cyberspace demonstrates that many content providers have chosen to make use of the NII as a channel of distribution. Creators, distributors and consumers of information share an interest in the continued expansion of the NII as a viable medium of communication. A carefully balanced legislative approach to the complex issues raised by copyright in the networked environment will help to realize the promise of the digital future.

ALLIANCE FOR PUBLIC TECHNOLOGY

AMERICAN ASSOCIATION OF LAW LIBRARIES

AMERICAN COUNCIL OF LEARNED SOCIETIES

AMERICAN COMMITTEE FOR INTEROPERABLE SYSTEMS

AMERICAN HISTORICAL ASSOCIATION

AMERICAN LIBRARY ASSOCIATION

ART LIBRARIES ASSOCIATION OF NORTH AMERICA

ASSOCIATION OF AMERICAN GEOGRAPHERS

ASSOCIATION OF RESEARCH LIBRARIES

CONSUMER PROJECT ON TECHNOLOGY

COMMITTEE OF CONCERNED INTELLECTUAL PROPERTY EDUCATORS

COMPUTER AND COMMUNICATIONS INDUSTRY ASSOCIATION

CONFERENCE ON COLLEGE COMPOSITION AND COMMUNICATION

CONSUMER FEDERATION OF AMERICA

CONSORTIUM OF SOCIAL SCIENCE ASSOCIATIONS

ELECTRONIC FRONTIER FOUNDATION

ELECTRONIC PRIVACY INFORMATION CENTER

HOME RECORDING RIGHTS COALITION

NATIONAL COUNCIL OF TEACHERS OF ENGLISH

NATIONAL EDUCATION ASSOCIATION

NATIONAL HUMANITIES ALLIANCE

NATIONAL SCHOOL BOARDS ASSOCIATION

SPECIAL LIBRARIES ASSOCIATION



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February 15, 1996

The Honorable Carlos Moorhead, Chairman
The Honorable Patricia Schroeder, Ranking Minority Member
U.S. House of Representatives
Subcommittee on Courts and Intellectual Property
B351A Rayburn House Office Building
Washington, DC 20515

Re: H.R. 2441, the National Information
Infrastructure Copyright Protection Act of 1995

Dear Chairman Moorhead and Representative Schroeder:

On behalf of the Magazine Publishers of America ("MPA"), the national trade association of consumer magazines, we present the following commentary to the Subcommittee on Courts and Intellectual Property ("Subcommittee") and ask for its inclusion in the official record of proceedings on the above-referenced matter. We speak for a membership of about 200 domestic companies that publish approximately 800 consumer magazines. Titles published by MPA members range from such large and well-known national publications as *Reader's Digest*, *Newsweek*, and *Time* to such relatively small and diverse publications as *Chesapeake Bay Magazine*, *Civilization*, and *Catholic Digest*. Over 300 million subscriptions to consumer magazines are sold annually, with consumers receiving 5.4 billion copies of those magazines.

MPA welcomes the opportunity to submit comments on this critically important legislation. Although magazines may be thought of as a traditional print medium, our members' publications--and their readers--have a very large stake in the successful growth of the National Information Infrastructure ("NII"). MPA is a founding member of, and active participant in, the Creative Incentive Coalition ("CIC"), which is submitting testimony to you under its aegis. MPA commends CIC's testimony to you and endorses it fully. Our purpose here is to supplement CIC's presentation by summarizing MPA's position for the record, and by alerting you to the importance of this legislation to our industry.

H.R. 2441 Should Be Enacted

MPA acknowledges the outstanding effort made by the Subcommittee and its staff to give full and fair consideration to all views on this legislation. Our position is unequivocal. MPA strongly supports the enactment of H.R. 2441 at the earliest practicable date. The bill's minimalist approach is sound public policy, ensuring the application of the time-tested principles of American copyright law to the digital environment, maintaining the essential balance of rights among parties.

The Honorable Carlos Moorhead
 The Honorable Patricia Schroeder
 February 15, 1996
 page two

at interest, and guaranteeing the healthy growth of this exciting new medium for the benefit of all who use it, now and in the decades to come.

MPA agrees wholeheartedly with the fundamental premise of H.R. 2441: if the NII is to grow and flourish, intellectual property distributed by means of the NII must be protected. Without this protection, copyright owners--both individual and corporate--simply will not make use of the NII. The technology of the NII, its brain, is truly wondrous; but the heart of the NII will be its content. Without adequate protection for that heart, the NII never will reach its full potential. The relatively minor amendments to the copyright law which would be made by H.R. 2441 would ensure this protection.

H.R. 2441 Significantly Affects the Magazine Industry

The consumer segment of interactive media is growing at a dramatic rate. The number of homes equipped with computers is estimated to have reached 34 million at the end of 1995. An estimated thirty percent of these are modem-equipped and sufficiently advanced technologically to gain access to the NII. By 1999, this number is expected to rise to 44.3 million, fifty percent of which will be modem-equipped, representing forty-four percent of all of our Nation's households. Presently, there are well in excess of the 100 "conventional" magazines available on commercial online services and on the World Wide Web, and the number is growing constantly. The increasing availability of magazines online impels our strong support for early enactment of H.R. 2441, especially with regard to the provision of the bill which makes it clear, beyond doubt or dispute, that copyright owners have the exclusive right to distribute copies of their works by transmission over computer networks, even if no physical copy of the work (for example, a magazine) changes hands.

As even the current statistics about conventional publications going "online" demonstrate, magazines do not fear the growth of digital media; to the contrary, our members are excited by the potential for new readership. MPA and its members view the NII as a new media form which makes available an additional means of distributing our magazines and disseminating their content. "New media" complements and supplements our traditional print form. Magazines have been published in this country for over 250 years. We view the NII not as a threat to be quashed, but as a dynamic new way to publish, whose growth we wish to ensure.

Also at stake in the H.R. 2441 debate, yet often unspoken, is the societal benefit of the NII. From our perspective, included in this societal benefit is the potential for the enhanced distribution of the publications of a free, healthy, and robust press. The NII truly has the potential to become the "Town Hall" of the twenty-first century. The opportunity for instantaneous, interactive access to a universe of editorial, commercial, and artistic material is unprecedented. The importance of

The Honorable Carlos Moorhead
The Honorable Patricia Schroeder
February 15, 1996
page three

copyright protection here cannot be understated. Without adequate protection for the works that will race along the "Information Superhighway", writers, journalists, authors, and photographers--as well as publishers--will be deterred from making those works available on the NII. An NII without rules will become merely a forum for the posting of stolen material, inaccurate information, or questionable data. The application of fundamental copyright principles to the NII is not merely in the economic interest of copyright owners, we submit; it is in our societal, democratic, and commercial interest as a Nation. If the full potential of the NII is to be attained, for everyone's benefit, Congress must guarantee basic copyright protection to content providers.

MPA appreciates the opportunity to comment on H R 2441, through both the testimony of the Creative Incentive Coalition and this statement. If we may provide additional information or commentary, or appropriately assist the Subcommittee in its deliberations in any way, we would be pleased to do so.

Respectfully submitted,



James R. Cregan
Senior Vice President/Counsel

cc: Members of the Subcommittee on Courts and Intellectual Property

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February 15, 1996

BY HAND

The Honorable Carlos J. Moorhead
Chairman
Subcommittee on Courts and Intellectual Property
Committee on the Judiciary
U.S. House of Representatives
B351-A Rayburn House Office Building
Washington, D.C. 20515

Attn: Mitchell Glazier, Assistant Counsel

Re: Comments of SESAC, Inc. on H.R. 2441 (the "NII Copyright
Protection Act of 1995")

Dear Mr. Chairman:

Enclosed are five (5) copies of the comments of SESAC, Inc. on H.R. 2441 (the "NII Copyright Protection Act of 1995"), including a one-page summary. The enclosed comments are submitted in response to your letter to the undersigned dated January 30, 1996.

SESAC appreciates the opportunity to present its comments on H.R. 2441 and would be happy to provide any additional information that would be helpful to you and the members of the Subcommittee. If there are any questions concerning these comments, please direct them to the undersigned counsel.

Sincerely,



Kenneth M. Kaufman

Enclosures

**SUMMARY OF COMMENTS OF SESAC, INC. ON H.R. 2441
(THE "NII COPYRIGHT PROTECTION ACT OF 1995")**

SESAC, Inc. (SESAC), which was founded in 1930, is one of the three U.S. music performing rights organizations which license public performances of nondramatic musical works on behalf of copyright owners. SESAC represents some 2,500 writers and publishers and more than 170,000 musical compositions of all types.

1. SESAC fully supports the underlying purpose of H.R. 2441 -- to ensure that copyrights and other intellectual property rights are protected on the NII and in digital transmissions of copyrighted works generally.

2. SESAC believes, however, that it is important to clarify that any new right of distribution of a reproduction by transmission will be in addition to, and separate and apart from, the Section 106(4) public performance right. Under the "bundle of rights" concept underlying the 1976 Copyright Act, a digital transmission of a copyrighted work can implicate both the public performance right (on the one hand) and the distribution and reproduction rights (on the other). To avoid any ambiguity, SESAC suggests that language be added to H.R. 2441 to clarify that the new transmission right is not intended to diminish or weaken in any respect the public performance right that has long been recognized in Section 106(4). This approach would be consistent with that of the Digital Performance Rights Act of 1995, where Congress expressly provided that the new digital performance right in sound recordings was not intended to diminish in any respect royalties payable to copyright owners of musical works for the public performance of their works.

3. The method or means by which a work is transmitted to members of the public should not affect whether the public performance right is implicated. Transmissions that take place in compressed time, as well as those occurring in real time, can involve public performances of copyrighted works, as can transmissions where the recipient makes a copy of the content that is transmitted.

4. Songwriters generally derive a significantly greater proportion of their livelihood from public performance rights than from other sources. Therefore, any change in the copyright law that would diminish or weaken the public performance right would have a severe detrimental impact on songwriters and their ability to earn a livelihood and, ultimately, on the creation of new music.

SESAC appreciates the opportunity to present its comments to the Subcommittee and looks forward to working with the Subcommittee to address the above concerns and to seek speedy enactment of H.R. 2441.

COMMENTS OF SESAC, INC. ON H.R. 2441
 (THE "NII COPYRIGHT PROTECTION ACT OF 1995")
 SUBMITTED TO
 THE SUBCOMMITTEE ON COURTS AND INTELLECTUAL PROPERTY
 COMMITTEE ON THE JUDICIARY
 UNITED STATES HOUSE OF REPRESENTATIVES

SESAC, Inc. ("SESAC"), by its undersigned counsel, hereby submits its comments on H.R. 2441 (the "NII Copyright Protection Act of 1995") in response to Chairman Moorhead's letter inviting SESAC to submit comments.

I. INTRODUCTION

SESAC is one of the three U.S. music performing rights organizations which license public performances of nondramatic musical works on behalf of copyright owners.¹ Founded in 1930 to represent the unrepresented composer and author, SESAC was originally known as the Society of European Stage Authors and Composers, a connotation that was discontinued nearly 60 years ago as the SESAC repertory become overwhelmingly Americanized. Today SESAC has an entrepreneurial spirit and a desire to seek out and enter into creative and alternative licensing arrangements. SESAC currently represents some 2,500 writers and publishers and more than 170,000 musical compositions of all types.²

¹ The Copyright Act contains a provision which defines a "performing rights society" as "an association or corporation that licenses the public performance of nondramatic musical works on behalf of the copyright owner, such as the American Society of Composers, Authors and Publishers, Broadcast Music, Inc., and SESAC, Inc." See 17 U.S.C. § 114(d)(3)(E)(ii), which was added by the Digital Performance Right in Sound Recordings Act of 1995. A similar provision was contained in the Copyright Act of 1976.

² The SESAC repertory encompasses virtually every category of musical compositions, including adult contemporary, black/urban, jazz, Hispanic, big band, country, gospel, dance, educational, Latin, classical, polka, rock, marching band, new

Comments of SESAC, Inc. on H.R. 2441
Page 2

SESAC applauds the underlying purpose of H.R. 2441 -- to ensure that copyrights and other intellectual property rights are protected on the National Information Infrastructure ("NII") and in digital transmissions of copyrighted works generally. As Chairman Moorhead stated in his floor statement introducing the bill:

"In order for the Internet to be a success, it must carry desired content. Copyright owners will not make their works available in the digital environment, however, until such material can be effectively protected"

And as the "White Paper" concluded, "[w]hat will drive the NII is the content moving through it."³

In these comments, SESAC (1) examines the relationship between the public performance right and the proposed new transmission right in order to demonstrate that Congress should make it clear that the new right will be in addition to, and separate and apart from, the public performance right; and (2) reviews evidence of the longstanding significance of the public performance right, not only to songwriters and music publishers, but to a broad range of business relationships in the entertainment industry. In sum, as a matter of logic, business practice, copyright tradition and sound public policy, Congress

age, film scores, television theme music and advertising jingles.

³ Report of the Working Group on Intellectual Property Rights of the Information Infrastructure Task Force, "Intellectual Property and the National Information Infrastructure" ("White Paper") at 11.

Comments of SESAC, Inc. on H.R. 2441
Page 3

should take care not to diminish or weaken the public performance right in any respect.

II. IT IS IMPORTANT FOR CONGRESS TO CLARIFY THAT THE NEW TRANSMISSION RIGHT IS NOT INTENDED TO DIMINISH OR WEAKEN THE PUBLIC PERFORMANCE RIGHT IN ANY RESPECT

- A. Congress should make clear that the new transmission right will be in addition to, and separate and apart from, the Section 106(4) public performance right

In order to ensure that the rights of copyright owners will be protected with respect to digital transmissions of copyrighted works via computer networks and other means, H.R. 2441 would amend the statutory delineation of the distribution right in Section 106(3) of the Copyright Act to include distributions "by transmission", and would add the following clause to the definition of "transmit" in Section 101 of the Copyright Act: "To 'transmit' a reproduction is to distribute it by any device or process whereby a copy of [sic] phonorecord of the work is fixed beyond the place from which it was sent."

While SESAC wholeheartedly supports H.R. 2441's objective of ensuring that the rights of copyright owners are protected with respect to digital transmissions of copyrighted works, we believe it is important to ensure that the new transmission right will not have the effect of diminishing or weakening the exclusive public performance right vested in copyright owners pursuant to Section

106(4) of the Copyright Act.⁴ In particular, Congress should make clear that a "transmission" does not only implicate either the performance or display right (on the one hand) or the distribution and reproduction rights (on the other); rather, Congress should expressly recognize that a transmission may appropriately constitute both a transmission of a performance or display⁵ and a distribution of a reproduction.

It is well settled in current copyright law -- and this was one of the fundamental tenets of the comprehensive 1976 copyright law revision -- that a particular use or exploitation of a copyrighted work can implicate more than one of the exclusive rights under copyright enumerated in Section 106. For example, if a motion picture producer wishes to make a sound recording of a copyrighted musical composition and incorporate it in a motion picture exhibited in theatres and distributed on home video, at least four of the exclusive rights enumerated in Section 106 of the Copyright Act are implicated with respect to the copyright in the musical composition: the reproduction right, the right to

⁴ The Section 106(4) exclusive right "to perform the copyrighted work publicly" applies to owners of copyrights in "literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works". 17 U.S.C. § 106(4). The Digital Performance Right in Sound Recordings Act of 1995 added a new public performance right "by means of a digital audio transmission" for sound recordings. See 17 U.S.C. § 106(6).

⁵ Under existing law, the definition of "transmit" in Section 101 of the Copyright Act refers to the transmission of "a performance or display".

Comments of SESAC, Inc. on H.R. 2441
Page 5

prepare a derivative work, the distribution right, and the public performance right.⁶ Producers and others acquiring intellectual property rights in creative works frequently obtain multiple rights and licenses from several parties. This is consistent with the "bundle of rights" concept underlying the 1976 Copyright Act, which provided for "divisible copyrights" in the sense that any of the exclusive rights under copyright which are set forth in Section 106 may be transferred and owned separately.⁷

- B. The method or means by which a work is transmitted to members of the public does not affect whether the public performance right is implicated. Under current copyright law, transmissions over computer networks can implicate the public performance right**

SESAC does not believe that the owner of the Section 106(4) public performance right under copyright in a particular work should have any lesser degree of rights in that work merely because of the method or means by which the work is transmitted to members of the public (e.g., in digital form on a computer network, as compared to more "traditional" or "conventional" means such as transmission via broadcast or cable television).⁸ It

⁶ In addition, of course, different copyright owners may own separate rights in the work (e.g., the motion picture producer will likely own the copyrights in certain elements of the motion picture).

⁷ See Ladd v. Law & Technology Press, 762 F.2d 809, 813 n.4 (9th Cir. 1985).

⁸ Every era, of course, has its own "new" technologies, which eventually become the "old" or "traditional" technologies of subsequent eras.

Comments of SESAC, Inc. on H.R. 2441
Page 6

should be made clear that any new right of distribution of a reproduction by transmission will be in addition to, and separate and apart from, the Section 106(4) public performance right. If the public performance right is implicated under existing law, it should not be implicated to any lesser degree under the proposed amendment contained in H.R. 2441.

Section 101 of the Copyright Act defines the performance or display of a work "publicly" to include, inter alia:

"(2) to transmit or otherwise communicate a performance or display of the work . . . to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times."

The legislative history of the Copyright Act of 1976 indicates that Congress anticipated, in providing broad language for the definitions of "publicly" and "transmit," that the public performance right would be implicated in an increasingly important manner in the transmission of copyrighted works over communications networks. The House Report concluded that "performances and displays are continuing to supplant markets for printed copies"⁹ and that:

"The definition of 'transmit' -- to communicate a performance or display 'by any device or process whereby images or sound[s] are received beyond the place from which they are sent' -- is broad enough to include all conceivable forms and combinations of wired or wireless communications media, including but by no means limited

⁹ H.R. Rep. No. 94-1476, 94th Cong., 2d Sess. 63 (1976) ("House Report").

Comments of SESAC, Inc. on H.R. 2441
Page 7

to radio and television broadcasting as we know them. Each and every method by which the images or sounds comprising a performance or display are picked up and conveyed is a 'transmission,' and if the transmission reaches the public in [any] form, that case comes within the scope of clauses (4) and (5) of section 106."¹⁰

The House Report also made clear that transmissions such as those over computer networks could constitute "public" performances which would implicate the public performance right under Section 106(4):

"[A] performance made available by transmission to the public at large is 'public' even though the recipients are not gathered in a single place, and even if there is no proof that any of the potential recipients was operating his receiving apparatus at the time of the transmission. . . . Clause (2) of the definition of 'publicly' is applicable 'whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.'"¹¹

SESAC submits that where a work incorporating a performance of a copyrighted work (e.g., a sound recording or audiovisual work incorporating a performance of a copyrighted musical composition) is transmitted over a computer network (or via satellite signals or other media) to members of the public, such a transmission constitutes a public performance to the same degree that it would if the transmission were via a cable television network or a television or radio station's broadcast signals. In the context of such a transmission, the images or sounds comprising the

¹⁰ House Report at 62 (emphasis added).

¹¹ Id. at 64-65 (emphasis added).

Comments of SESAC, Inc. on H.R. 2441
Page 8

performance are "picked up or displayed" to members of the public, just as they are through a cable network or a broadcaster. The fact that members of the public may, or may not, view or listen to the performance at the same time that it is transmitted, as opposed to viewing or listening to it at a later time, is not determinative of whether the public performance right is implicated in the transmission, any more than it is in a situation in which television viewers do not watch a program at the time it is transmitted.

- C. **Consistent with existing law, Congress should make it clear that transmissions over computer networks that take place in compressed time, as well as those occurring in real time, can involve public performances of copyrighted works**

The only palpable difference between a transmission over a computer network and a transmission over a broadcast or cable television network is that a television broadcast or satellite transmission is generally made in real time, while a transmission over a computer network is sometimes made in real time and sometimes made in a shorter (compressed) period of time. The fact that one transmission may be made in real time, while another may be made in a different time frame, should not affect the legal conclusion as to whether the public performance right is implicated. In this regard, in the context of broadcast or cable satellite transmissions, the network transmission (or "feed") to its affiliated stations or cable systems often occurs at a different time from when a particular station or cable operator

Comments of SESAC, Inc. on H.R. 2441
Page 9

transmits that programming to viewers. It is clear, however, that both such transmissions (i.e., the network "feed" and the station's or cable operator's transmission to its viewer) constitute public performances which implicate the public performance right under copyright.

In David v. Showtime/The Movie Channel, Inc., 697 F. Supp. 752 (S.D.N.Y. 1988), Showtime/The Movie Channel, Inc. ("Showtime") argued that since its satellite signals were transmitted to local cable operators for retransmission, rather than to the viewing public, its transmissions to cable systems did not violate the public performance right of the copyright owners of the works being transmitted. The court disagreed, and held that Showtime's transmissions to local cable operators did constitute "public performances" within the meaning of Section 106(4). The court determined, based on its review of the legislative history of the Copyright Act, that "the concept of 'public performances' should be interpreted broadly" and that "Congress intended the definitions of 'public' and 'performance' to encompass each step in the process by which a protected work wends its way to its audience."¹² In doing so, the court relied in part on the following language from the House Report:

"Under the definitions of 'perform,' 'display,' 'publicly,' and 'transmit' in section 101, the concepts of public performance and public display cover not only the initial rendition or showing, but also any further

¹² 697 F. Supp. at 758, 759 (emphasis added).

Comments of SESAC, Inc. on H.R. 2441
Page 10

act by which that rendition or showing is transmitted or communicated to the public. . . ."13

See also Broadcast Music, Inc. v. Hearst/ABC Viacom Entertainment Services, 746 F. Supp. 320, 328-29 (S.D.N.Y. 1990) (court dismissed defense that transmissions of Lifetime cable network did not constitute public performances).

- D. Consistent with existing law, Congress should make it clear that transmissions over computer networks where the recipient makes a copy of the content which is transmitted can involve public performances of copyrighted works

A related issue considered in connection with the White Paper is whether, if a user makes a copy of programming which is transmitted over a computer network, the transmission should be treated as a distribution, a performance, or both. SESAC submits that whether a user has the opportunity to make a copy of programming being transmitted, or whether the user in fact makes a copy of such programming, should not be determinative of whether a public performance takes place, any more than the availability of a video or audio tape recorder to record a television or radio program would be. SESAC believes that in such a situation, the public performance right is clearly implicated (whether or not the distribution right is implicated as well), as long as the performance is "public" in the sense that it is available to members of the public. As the court held in On Command Video Corp. v. Columbia Pictures Industries, 777 F. Supp. 787 (N.D. Cal.

¹³ Id. at 758, quoting House Report at 63.

1991) (with respect to a new system for viewing motion pictures in hotel rooms):

"[W]hether the number of hotel guests viewing an On Command transmission is one or one hundred, and whether these guests view the transmission simultaneously or sequentially, the transmission is still a public performance since it goes to members of the public."¹⁴

See also Columbia Pictures Industries, Inc. v. Redd Horne, Inc.,
749 F.2d 154, 158-60 (3d Cir. 1984).¹⁵

In this regard, one analogy may be helpful. If a pay-per-view telecast is transmitted to subscribers of a cable system, the public performance right is clearly implicated. If a particular subscriber makes a copy of the programming contained in that pay-per-view transmission through use of a VCR, it would not transform the nature of the legal rights implicated from a public performance right to a distribution right. Clearly, there would be a public performance with respect to the user who made a videocassette copy, just as there would be with respect to another user who didn't.¹⁶ SESAC submits that there is no logical rationale for reaching a different conclusion in the case of a transmission on a computer network.

¹⁴ 777 F. Supp. at 790 (emphasis added).

¹⁵ The latter two cases are cited in the White Paper at 71 n.222.

¹⁶ Of course, there might also be a distribution and/or reproduction with respect to the user who made the videocassette copy. Under the 1976 Copyright Act, rights such as the public performance right, the distribution right and the reproduction right are viewed as additive and not mutually exclusive.

SESAC recognizes that, to the extent new technologies such as computer networks may implicate different rights under copyright, it may become more complicated for networks, service providers and users to evaluate and license the appropriate rights. But the solution to this perceived problem is not to abrogate or subordinate one long-established right (the public performance right) and substitute or elevate another (the distribution right). The solution, rather, is to allow business practice, through the marketplace, to adapt to the new computer and online technologies, just as they have adapted to successive other "new" technologies in the past.

- E. Congress should clarify, consistent with its approach in the Digital Performance Rights Act of 1995, that the new transmission right is not intended to diminish or weaken in any way the Section 106(4) public performance right

To avoid ambiguity,¹⁷ SESAC suggests that language be added to H.R. 2441 to clarify the intention of Congress that the new transmission right is not intended to diminish or weaken in any way the Section 106(4) public performance right. This approach

¹⁷ While SESAC generally agrees with the conclusions of the White Paper, some ambiguity may be created by certain language at pages 217-18 and note 544 of the White Paper. That language refers, inter alia, to whether "the transmitter intends to transmit a performance of the work, as well as to distribute a reproduction of it" and whether "the transmitter intend[s] to communicate a performance or display of a work or, rather, to distribute a reproduction of the work." Ultimately the White Paper did not adopt the "primary purpose or effect" standard suggested in the "Green Paper" (the Working Group's Preliminary Draft). Nonetheless, the foregoing language highlights the need for appropriate clarification of these issues.

Comments of SESAC, Inc. on H.R. 2441
Page 13

would be consistent with that of the Digital Performance Rights Act of 1995, in which Congress explicitly provided that the new digital performance right in sound recordings was not intended to diminish in any respect royalties payable to copyright owners of musical works for the public performance of their works. The language of Section 114(i) of the Copyright Act, which was added by the Digital Performance Rights Act, provides:

"(i) NO EFFECT ON ROYALTIES FOR UNDERLYING WORKS.
-- License fees payable for the public performance of sound recordings under section 106(6) shall not be taken into account in any administrative, judicial, or other governmental proceeding to set or adjust the royalties payable to copyright owners of musical works for the public performance of their works. It is the intent of Congress that royalties payable to copyright owners of musical works for the public performance of their works shall not be diminished in any respect as a result of the rights granted by section 106(6)."

17 U.S.C. § 114(i). SESAC respectfully suggests that a similar clarification with respect to the new transmission right would further the purposes of H.R. 2441 and avoid ambiguity and potential legal disputes.

III. THE PUBLIC PERFORMANCE RIGHT IS OF PRIMARY IMPORTANCE TO SONGWRITERS

During the course of the proceedings that led to the issuance of the White Paper, numerous questions were raised as to the relative importance of the Section 106(4) public performance right as compared with other rights, in the context of real-world transactions in the entertainment industry. Among others, the following questions (which also relate to the issues before the

Comments of SESAC, Inc. on H.R. 2441
Page 14

Subcommittee) were raised: how important is the public performance right to songwriters and music publishers, both in absolute terms and in relation to other rights (such as the distribution and reproduction rights)? Specifically, to what degree does a songwriter's livelihood depend on income from public performances of his or her musical compositions, as compared with income from mechanical or synchronization rights?

SESAC has conducted an analysis of these issues which we believe would be helpful to the Subcommittee. SESAC wishes to emphasize, however, that the information provided herein is not based on proprietary information concerning SESAC's own affiliated songwriters and music publishers (nor is it based on any proprietary information involving writers and publishers affiliated with any other performing rights society), but rather is derived from generally available information contained in published books, articles, the trade press, and other reference materials.¹⁸

¹⁸ These books and reference materials include: Jeffrey Brabec & Todd Brabec, Music, Money and Success: The Insider's Guide to the Music Industry (1994) ("Brabec"); Jeffrey Brabec & Todd Brabec, Movie Scores & Songs, in The Hollywood Reporter 1989 Film & TV Music Special Report (1989); Donald C. Farber, Entertainment Industry Contracts: Negotiating and Drafting Guide (1994) ("Farber"); Mark Halloran, The Musician's Business & Legal Guide (1991); Mark Halloran & Thomas A. White, Pop Soundtrack Music for Film, in 1990 Entertainment, Publishing and the Arts Handbook (1990); Al Kohn & Bob Kohn, The Art of Music Licensing (1992) ("Kohn"); Donald S. Passman, All You Need to Know About the Music Business (1994); Sidney Shemel & M. William Krasilovsky, This Business of Music (1990) ("Krasilovsky"); and Billboard Magazine.

- A. Songwriters are heavily dependent on income from public performance rights; in fact, they generally receive significantly more income from public performance rights than from other sources**

The typical songwriter is not a "superstar" singer/songwriter like Bob Dylan or Neil Diamond. Most songwriters do not release commercial recordings of their songs and earn only a modest income from writing songs that are performed and recorded by others.

Songwriters derive income primarily from public performance rights, mechanical rights and synchronization rights.¹⁹ The information summarized below demonstrates that songwriters generally derive a significantly greater proportion of their livelihood from public performance rights than from other sources. We will first examine "mechanical" rights and synchronization rights and will then compare the income derived by songwriters from the licensing of such rights with that arising from the licensing of public performance rights.

1. Mechanical rights; compulsory license

"Mechanical" rights refer to the right to reproduce songs in sound recordings. Once a sound recording of a musical composition has been made and distributed under the authority of the copyright owner of the song (generally the songwriter and/or the music publisher), Section 115 of the Copyright Act permits anyone else

¹⁹ Songwriters also derive some income from the exploitation of certain other rights in musical compositions (such as sheet music and other print rights) that are not directly affected by the issues presented in H.R. 2441 and are therefore not analyzed in these comments.

to make and distribute a sound recording of the same musical composition by obtaining a compulsory license and paying a statutory license fee.²⁰ Currently, that fee is 6.95 cents per song.²¹

Most rights in musical compositions have traditionally been administered by music publishing companies.²² Income derived from the licensing or other disposition of rights in a song is traditionally divided into two "pots": the "publisher's share" (that portion of such income payable to the music publisher) and

²⁰ 17 U.S.C. § 115. Technically, the compulsory license relates to making and distributing "phonorecords", which are material objects in which sounds are fixed, 17 U.S.C. § 101. The statutory language in Section 115 expressly refers to the reproduction and distribution rights provided by Sections 106(1) and 106(3) of the Copyright Act, 17 U.S.C. §§ 106(1) and 106(3), being subject to compulsory licensing. The Digital Performance Right in Sound Recordings Act of 1995 added a new Section 115(c)(3) relating to a compulsory license for distribution of phonorecords "by means of a digital transmission which constitutes a digital phonorecord delivery". See 17 U.S.C. § 115(c)(3).

²¹ 37 C.F.R. § 255.3(h). This statutory license fee is for musical compositions up to five minutes in length or, if over five minutes, 1.3 cents per minute of playing time. The statutory rate was 6.6 cents until January 1, 1996, when the 6.95-cent rate took effect. See Cost of Living Adjustment of the Mechanical Royalty Rate, 60 Fed. Reg. 55,458 (Nov. 1, 1995).

²² In the early 1900's music publishers sought to generate revenue from songs through print publication of sheet music -- hence the name "publishers". Today, music publishers engage in a wide variety of activities in an effort to generate revenue from songs, including seeking public performances, sound recordings, and usage of songs in motion picture and television productions, making arrangements for the publication and exploitation of songs in territories outside the United States, introducing songwriters to artists and producers, and arranging collaborations among writers.

the "writer's share" (that portion of income payable to the songwriters of the song, collectively). By longstanding industry custom and practice, the writer's share and publisher's share each equal 50% of the revenues derived from the exploitation of rights in a song. Accordingly, for each \$1.00 in income generated from the licensing of rights in a musical composition, 50 cents goes to the songwriters collectively and 50 cents goes to the music publisher or publishers.²³

Different songs, of course, are written by different combinations of songwriters. Frequently two writers will write a song together, with one writing solely or primarily the music and the other the lyrics. In other cases, multiple writers will collaborate on a song, while in other instances a single songwriter will write both music and lyrics.²⁴ Because it is typical for two songwriters to be involved in the creation of a song, the examples set forth below will generally assume that

²³ At the statutory rate of 6.95 cents for mechanical licenses, the writer's share and the publisher's share are each 3.48 cents (rounding all figures to two decimal places).

²⁴ In still other instances, songwriters will collaborate on the music and lyrics of a song, but will utilize preexisting material (such as an earlier version of a song or a version in a different language) or write new material (such as a new arrangement). In such cases, if the preexisting material is under copyright, an appropriate license or other grant of rights will need to be obtained (e.g., a derivative work license under Section 106(2) of the Copyright Act), which will frequently result in multiple rights holders sharing the writer's share of income.

there are two songwriters.²⁵

Without any deductions or offsets,²⁶ the mechanical income derived by a songwriter (where two writers have collaborated on a song) from the sale of a sound recording is 1.74 cents, or one-half of the writer's share of 3.48 cents.²⁷ Therefore, if a record sells 1 million copies, a songwriter of a musical composition contained on that record would earn approximately \$17,400 from the sale of those records.²⁸

The statutory rate acts as a maximum, or cap, on the mechanical license fee that is paid with respect to each record sold. Numerous factors can operate to reduce the income derived by songwriters below the statutory rate. For example, some prospective licensees of a song will be willing to pay only a

²⁵ An informal survey of the 75 songs on Billboard Magazine's country singles chart indicated that approximately three-fourths of the songs were written by two or more songwriters.

²⁶ See the discussion infra relating to controlled compositions clauses, mid-price and budget records, and other factors that operate to diminish the effective writer's share.

²⁷ Note that these figures apply to records sold and not returned. By longstanding industry custom and practice, retail outlets generally have the right to return unsold inventory to record companies for full credit.

²⁸ A very small proportion of records sells as many as 1 million copies, which is enough to be certified "gold" for a single and "platinum" for an album.

fraction (e.g., 75%) of the statutory rate.²⁹ And if a songwriter is also a recording artist, the songwriter's effective mechanical income is likely to be diminished by the "controlled compositions" clause in his or her record contract. Such clauses generally provide, inter alia, that: (1) with respect to songs written, owned or controlled by the artist, in whole or in part, the record company will pay a mechanical royalty equal to only a percentage of the statutory rate (generally 75%); and (2) with respect to an album, the record company will not pay mechanical royalties that exceed the (reduced) mechanical rate applicable to 10 songs, even if there are more than 10 songs on the album. Accordingly, if a song is subject to a controlled compositions clause, the record company will pay a mechanical royalty amounting to a maximum of only approximately 5.21 cents per song (75% of 6.95 cents), with 2.61 cents being the respective writer's and publisher's shares, and 1.30 cents being the mechanical royalty derived by each songwriter (again assuming two writers).

Moreover, if an artist/songwriter subject to a controlled compositions clause co-writes, say, 5 songs on an album, and also performs 5 songs written by other writers, the record company may pay the full statutory rate for the 5 songs written by others. This means that the record company would pay 34.75 cents (5 times

²⁹ This is frequently the case, for example, with respect to so-called "mid-price" or "budget" records (which have a lower than normal suggested retail list price) or for records that contain more than 10 songs.

6.95 cents) to the publishers of the other songs, leaving only 17.38 cents (the 52.13 cents which the record company will pay at a 75% rate, less 34.75 cents) in mechanical royalties for the 5 songs written by the artist/songwriter -- which translates into an effective mechanical royalty of just 0.87 cents per song for each songwriter (assuming two writers). SESAC also notes that many songwriters write primarily background or theme music or other music contained in audiovisual productions, and therefore are unlikely to receive any significant mechanical rights income.

For these reasons, the potential for most songwriters to derive a significant amount of income from mechanical royalties is somewhat limited.³⁰

2. Co-publishing agreements

Traditionally, and especially with newer songwriters without a significant track record, music publishers have retained the entire "publisher's share" (i.e., 50% of the total income from the licensing of rights in a song). A "co-publishing agreement" refers to an arrangement in which a music publishing company which is owned or controlled by the songwriter receives a percentage of the publisher's share of revenue and, sometimes, shares responsibility for carrying out certain administrative functions of the music publisher. In general, publishers are more willing

³⁰ Even in the case of so-called "superstar" recording artists who also write their own songs, such artists generally derive far more income from their royalties as recording artists than from their mechanical royalties as songwriters.

to enter into co-publishing agreements with songwriters who have a track record of commercially successful songs.

While the respective percentages vary, in those instances where a music publisher is willing to enter into a co-publishing agreement, a 50/50 arrangement is probably more common than any other.³¹ In a 50/50 co-publishing arrangement, the songwriter's own music publishing company will receive 50% of the net publisher's share of income, while the other music publisher retains the remaining 50%. This is often referred to as a "75/25" split, since the writer and his own publishing company (if there were no deductions or offsets) would retain 75% of the total revenues (the 50% writer's share, plus an additional 25% as one-half of the publisher's share) while the other publisher would retain 25% (one-half of the publisher's share).³²

3. Synchronization licenses

Synchronization (or "synch") licenses refer to the right to use a song in synchronization or timed relation with visual

³¹ Some co-publishing arrangements start out with the songwriter having less than a 50% interest in the publishing (e.g., 25%) with the opportunity to increase that interest (e.g., to 50%) to the extent that he or she develops a commercial track record.

³² In many such situations the other music publisher will be entitled to an administration fee ranging from approximately 10% to 25% of the publisher's share of revenues. This has the effect of lowering the percentage of total revenues derived by the songwriter (e.g., if the administration fee is 20% of the publisher's share, the songwriter and his or her own publishing company will receive 65% of the total revenues and the other publisher will receive 35%).

images. Pursuant to established industry custom and practice, the parties acquiring such rights (e.g., television and motion picture producers) tend to pay a flat fee for a long-term license. For television or motion picture synchronization licenses, fees for long-term worldwide rights have been reported to range from several hundred dollars to \$30,000 or more, depending on the type and duration of use.³³ A songwriter derives no additional income from the licensing of motion picture synchronization rights if the motion picture is a hit. Unlike with other creators, motion picture producers are generally unwilling to negotiate percentages of gross or net revenues with songwriters.

In the home video and multimedia areas, many video producers and multimedia publishers are insisting on buyouts of rights in musical compositions for a fixed fee and are resisting royalty or shorter-term arrangements.

All of the foregoing reinforces the need to protect the performance rights of songwriters on the information superhighway and the importance of preserving the distinct rights under copyright that enable songwriters to earn a livelihood.

4. Public performance income

Income from public performances constitutes, by far, the largest source of income for songwriters. Available statistics relating to the aggregate income derived by songwriters and music

³³ See Kohn, supra note 2, at 930-31.

Comments of SESAC, Inc. on H.R. 2441
Page 23

publishers demonstrate that performing rights revenues, on average, are approximately twice those of mechanical rights revenues.³⁴

Various estimates have been given for the approximate ranges of public performance income that may be derived from particular types of performances of a song. It has been estimated, for example, that a song appearing on a national chart can earn anywhere from a few thousand dollars to well in excess of \$300,000 in public performance income, depending on such factors as its rank and duration on the chart and whether its popularity is limited to a particular type or format of music or whether it appears on or "crosses over" into different formats (resulting in performances on different types of radio stations).³⁵ This compares with a total of \$69,500 in mechanical royalties from a million-selling record³⁶ and demonstrates how important the public

³⁴ See Audio Week, July 19, 1993 (an estimated \$650 million in performing rights royalties collected and distributed in the U.S. by performing rights societies, as opposed to an estimated \$350 million in mechanical royalties); Krasilovsky, supra note 2, at 196, 242.

³⁵ See Brabec, supra note 2, at 284. The above figures represent total performance income (writer's and publisher's shares combined) for the first year a song is on the charts. (Accordingly, the writer's share payable to each writer for a song with two songwriters would be one-fourth of the respective numbers.)

³⁶ The \$69,500 figure represents the combined writer's and publisher's shares, without taking into account controlled compositions clauses or other factors that diminish mechanical income.

performance right is to songwriters.

Moreover, the income which songwriters derive from public performances is not subject to reduction by virtue of such factors as controlled compositions clauses. In addition, songwriters have traditionally received payments of the writer's share of performance rights income directly from the performance rights society with which they are affiliated. By contrast, the writer's share of mechanical royalties is paid to the music publishing company, which subsequently remits them to the songwriters (generally in a later accounting cycle).

The above figures demonstrate that the public performance right is of primary importance to songwriters. Any change in the law that would diminish or weaken the public performance right would have a severe detrimental impact on songwriters and their ability to earn a livelihood and, ultimately, on the creation of new music.

B. The importance of the public performance right is magnified by the fact that songwriters lack certain protections available to others in the entertainment industry .

Songwriters do not enjoy certain protections available to many others in the entertainment industry and need to rely on the Section 106(4) public performance right to make up for this lack of protection in other areas. For example, union musicians, vocalists, screenwriters, directors, and performers are entitled to residual payments from repeated or ancillary uses of their

Comments of SESAC, Inc. on H.R. 2441
Page 25

creative contributions under applicable union and guild agreements.³⁷ Moreover, as is noted above, songwriters are subject to the compulsory license provisions of Section 115 of the Copyright Act for "mechanical" licenses and are unable to bargain for the fair market value of their songs when they are incorporated in sound recordings. In addition, songwriters rarely have the opportunity to benefit from certain ancillary sources of income, such as merchandising and commercial tie-up rights, available to many others in the entertainment industry.

IV. CONCLUSION

SESAC believes that the foregoing facts clearly demonstrate the paramount importance of the public performance right to songwriters and music publishers. SESAC respectfully recommends that language be added to H.R. 2441 to clarify that the proposed new transmission right is not intended to diminish or weaken in any respect the Section 106(4) public performance right. Without such clarification, SESAC is concerned that the rights and interests of songwriters and music publishers could be seriously eroded.

SESAC appreciates the opportunity to present its comments and would be happy to further assist the Subcommittee in its efforts

³⁷ These agreements include those involving such labor organizations as the American Federation of Musicians (A.F. of M.), the Screen Actors Guild (SAG), the American Federation of Television and Radio Artists (AFTRA), the Writers Guild of America (WGA), and the Directors Guild of America (DGA).

Comments of SESAC, Inc. on H.R. 2441
Page 26

to enact H.R. 2441, and to provide any additional information that may be helpful.

Respectfully submitted,
SESAC, INC.

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February 15, 1996



Frances W. Preston
President
Chief Executive Officer

Via Messenger

February 15, 1996

The Honorable Carlos J. Moorhead
Chairman
Subcommittee on Courts and Intellectual Property
Committee on the Judiciary
B-351A Rayburn House Office Building
Washington, DC 20515

Dear Mr. Chairman:

On February 7th and 8th, 1996, the Subcommittee on Courts and Intellectual Property of the House Committee on the Judiciary held a concluding two days of hearings, on H.R. 2441, the NII Copyright Protection Act of 1995. On behalf of Broadcast Music, Inc. ("BMI"), I presented testimony on the first day of hearings regarding the effect of the proposed law on the right of public performance.

During the opening remarks of the Subcommittee Members on February 7, 1996, Congressman Jim Sensenbrenner expressed interest with regard to one aspect of BMI's testimony regarding the impact of H.R. 2441 on the public performing right. Specifically, Congressman Sensenbrenner asked me whether the performing rights organizations (i.e., BMI, ASCAP and SESAC) contend that the delivery of a sound recording via electronic means to a purchaser constitutes a public performance of the underlying musical work which would require the online distributor to obtain a license. Congressman Sensenbrenner was unable to wait for my oral response. I am pleased to have the opportunity to expand upon my answer.

Under the current definition of public performance contained in the 1976 Copyright Act, a transmission of a performance of a musical work whereby sounds are received beyond the place from which they were sent constitutes a public performance. In conjunction with my testimony on this point, I submitted a legal memorandum for the record. BMI supports clarification of current law to expressly provide that the right of distribution applies to transmissions. We believe that this clarification of existing law should not affect current law concerning transmissions which constitute public performances.



The Honorable Carlos J. Moorhead
February 15, 1996
Page Two

As Congressman Rick Boucher acknowledged in his comments during the hearing, digital transmissions over the NII, which frequently involve the making of transitory copies, are currently supplementing and may one day entirely supplant traditional analog means of broadcasting. Due to the advent of new technology which permits "streaming" of data and other "real time" broadcasting techniques, some NII transmissions will be in real time and some will involve downloading. The new law must be clear that notwithstanding whether or not computer devices make copies of works in order to facilitate the transmissions, all of these transmissions of musical works continue to be public performances, as long as they meet the 1976 Act's definition under current law.

It is worth noting that traditional broadcasts are frequently copied by consumers for later viewing (i.e., "time shifting"). This has not been considered, however, to alter the fundamental nature of the broadcast as a public performance. If anything, two rights (the right of public performance and the right of distribution) can be implicated by a single transmission on the NII. As I testified orally, BMI believes that the marketplace should decide how to value the public performing right as it applies to deliveries of sound recordings to consumers via electronic online transmission. As always, the courts can interpret the application of the various rights to individual transmissions. BMI simply wants the law to be expressly clear that the amendment to the definition of "transmit" with regard to reproductions does not limit the meaning given to the public performance right under the 1976 Act.

Very truly yours,

A handwritten signature in cursive script that reads "Frances W. Preston". The signature is written in dark ink and has a small mark at the end of the last name.

Frances W. Preston

Statement of Pacific Telesis Group**to****The Subcommittee on Courts and Intellectual Property
of the House Committee on the Judiciary****on****H. R. 2441: "NII Copyright Protection Act of 1995"****February 15, 1996**

Pacific Telesis Group is a diversified telecommunications corporation headquartered in San Francisco. We provide a single source for telecommunications needs ranging from local telephone service and directory advertising to advanced networks for business. Our company is one of the seven regional holding companies (RHCs) formed in connection with the 1984 divestiture of AT&T. We are among California's largest businesses, with \$20 billion in assets and 1995 revenues totaling \$9.04 billion. Pacific Bell, our largest subsidiary, serves approximately three-fourths of the 31 million people in California providing local and toll telecommunications services, consumer and business broadband networks, data services, access to long-distance and other providers, and enhanced services.

SUMMARY

Last year, Pacific Bell formed a subsidiary, Pacific Bell Internet Services (PBI) to provide Internet access and related services to business and residential customers in California. The provision of Internet-related services is a significant and growing

business in California and Pacific Bell has positioned itself as an important player in this arena. At this point, of course, no one knows the full potential of the Internet, commercial or otherwise. However, Pacific believes that the Internet will be a valuable productivity tool for businesses and an important catalyst to the age of electronic commerce. Given this potential, as well as the unknowns surrounding its future use, Pacific believes that any government regulation of the Internet at this time must be undertaken with caution and in a manner which permits the Internet to develop to its full potential as a commercial tool, while continuing to safeguard the rights and reasonable expectations of the users of the Internet.

H.R. 2441, the NII Copyright Protection Act of 1995, seeks to protect copyright owners from infringing publication of their works via distribution over the Internet, and other components of the National Information Infrastructure (NII). This is a goal which Pacific supports. However Pacific has serious concerns about the bill as introduced. If H.R. 2441 is enacted as written the result could be a serious disruption and perhaps ultimate failure of our Internet services business. Pacific therefore requests that the Committee support a comprehensive review and study of the issues raised by the bill prior to taking any action on this legislation. The full range of intellectual property issues should be considered in order to arrive at balanced and constructive solution. At the very least, Pacific requests that H.R.2441 be amended to address the concerns of all parties to the world of the Internet -- content providers, access and on-line providers and users. The following comments more fully discuss Pacific's interest in and concerns with this legislation.

PACIFIC BELL INTERNET SERVICES

California's potential market for Internet services is the largest in the United States and one of the largest in the world;

- More than one-third of all Internet traffic begins or ends in California;
- Over one-quarter of Internet addresses are in California; and
- 10 of the top 25 cities with the highest concentration of Internet connected companies are based in the state.

Most users of the Internet access the network through an Internet Service Provider (ISP). An ISP allows a client to attach their local networks or even a single machine to the ISP's network, which is then in turn connected to the global Internet.

Realizing the market opportunity for Internet services in California and recognizing Pacific Bell's expertise in network services, Pacific entered the Internet access services market in 1995 through a newly-formed subsidiary, Pacific Bell Internet Services (PBI). PBI is a regional Internet Service Provider currently offering Dedicated Access Services to medium- to large-sized businesses in California. This spring, Pacific Bell will be the nation's first Bell Company to offer a full range of Internet services to both business and residential customers: access, transport, hardware and software. In April, PBI will begin offering high speed Dial-Up Access Services to small businesses and residential customers in the San Francisco, Los Angeles /Orange County, San Diego and Sacramento areas. Later this year, PBI plans to offer Integrated Services Digital Network (ISDN) access to Internet services for small and medium businesses and

consumers who desire a cost-effective, high speed and simple way to access the Internet. ISDN, or Integrated Services Digital Network, is a telephone access technology that uses digital instead of analog transmission, which translates to more speed and higher quality.

As California's largest local exchange carrier, Pacific Bell is well positioned to provide both the network transport and the Internet access services needed to join the global marketplace. Pacific Bell has a proven history of success in designing, building and managing some of the largest, most sophisticated and complex data networks -- both private and switched -- in the world. Besides considerable transport experience, the company is recognized as a leader in the development of the Internet infrastructure and is widely regarded in the industry;

- Pacific Bell is a founding member of the Internet Society and the Bay Area Regional Research Network, both highly respected pioneers of the worldwide collections of computer networks;
- Pacific Bell is also an active participant in CommerceNet, an industry consortium working to create an electronic marketplace on the Internet;
- Last year, the company was awarded a contract by the National Science Foundation to operate one of the four Internet NAPs nationwide.

The company has established relationships with Cisco Systems, Netscape Communications, and Sun Microsystems in order to offer an integrated, value added, Internet product line.

As an established and well known brand name in California communications, Pacific Bell is a name that can be trusted. Pacific's brand name will give customers the confidence they need to become "wired" and join the world of electronic commerce.

Pacific Bell serves the mass market, and can bring to the market scale and scope that will help keep prices affordable. Pacific can provide an affordable packaged product that is easy to use, fully supported, and ubiquitous in the market. Further Pacific Bell understands the value that Internet service can bring in meeting the communication and information needs of the people and businesses of California.

The growing volume of communication over the Internet or NII has demonstrated that millions of computers using different operating systems and designed for different applications can talk with one another, whether they are just operating locally or anywhere else in the world. This development of interconnectivity has far reaching implications for the economy of California and the United States. The growing use of the Internet will help to usher in a new era of electronic commerce.

Pacific believes that the Internet is rapidly becoming the de-facto standard for both inter-enterprise data communications and internal business process management. Until recently, business automation has been mainly about migrating paper systems to electronic platforms. Now it is about the development of breakthrough applications for reaching customers and making transactions easier and more efficient. In a word: reengineering. The Internet is becoming a productivity tool for business, leading to lower costs, increased efficiencies, and better customer service. This increase in productivity will increase the value of business -- and this value will translate to more than just dollars and cents. It will mean jobs in all segments of the market.

The question arises whether there is customer readiness for this world of electronic commerce. We, and others in the industry, have shown over the past several years that we can push technology, deploy the capital, get the networks built and develop applications. What we have not focused on enough is: How do you make technophiles out of 50 million technophobes in a short time. The reality is that customers are not yet ready, but that critical mass is plainly nearing. Consider the growth of electronic mail, or E-mail. In 1995, for the first time, the Internet E-mail volume surpassed the volume of first class mail -- 95 billion messages compared to 85 billion.

What is it that the average consumer needs before he/she will begin to utilize the full potential of the electronic network? Customers need education and access, as well as an assurance of the integrity, reliability and privacy of communications.

Pacific believes that the Internet will quickly emerge as the launch-pad for customer acceptance of electronic commerce. As new systems and networks are installed in large and small companies all over the country, the American workforce, en masse, is "going to school on the Internet" and learning the basics of on-line communications. The desktop computer, hot-linked to both internal and external databases, is going to be the "training wheels" for the digital future.

To reiterate, the Internet is a business opportunity for Pacific Telesis Group. It is as important to Pacific as the long distance or video markets which were recently opened to us with passage of the telecommunications reform legislation. The Internet is a productivity tool for business and an education tool for our schools. The Internet can play a vital role in training the American workforce for the era of electronic commerce.

Commercial use of the Internet will result in economic growth and new jobs for California and the United States.

However the development of the Internet as a medium of electronic commerce could falter if policymakers misstep in their efforts to regulate its use. Any regulation of this new communication medium must balance the rights of all parties -- content providers, access providers, and users. It must also promote and preserve the integrity, reliability and privacy of communications over the Internet. To do otherwise would result in restricting the growth of the NII to the detriment of all parties.

H.R. 2441 NII COPYRIGHT PROTECTION ACT OF 1995

The bill H. R. 2441 would codify recommendations regarding the applicability of U.S. copyright law to the National Information Infrastructure (NII) environment contained in the recent report entitled "Intellectual Property and the National Information Infrastructure" (the "White Paper") chaired by Bruce Lehman, Commissioner of Patents and Trademarks. Among other provisions, the legislation would:

- expand copyright owners' distribution rights to include the transmission of a work over a communications network; and
- expand the definition of "publication" to include digital transmissions.

Pacific Telesis Group has several concerns about these provisions. Our first concern is about what these provisions do: they expose access and on-line service providers to direct liability for copyright infringement by expanding the distribution rights of copyright owners to include transmissions of their works. Secondly, we are

concerned by what the provisions do not do, which is provide access and on-line service providers with protection from contributory or vicarious liability for copyright infringement. Finally, these provisions will cause access and on-line service providers to take actions that directly implicate the privacy and confidentiality of their subscribers' communications or other transmissions over their networks, in order to avoid liability for copyright infringement.

We think that expanding the rights of copyright owners to include distribution without providing for any additional burdens on the copyright owner to prove ownership is not a balanced solution. Access and on-line service providers who provide access to users should not be subject to the same liability standard as the user who actually creates and/or transmits the infringing message. Current copyright law exempts common carriers from liability, only in the limited circumstance where the carrier has no direct or indirect control of the content of the transmission or the particular recipient of the transmission, and where the carrier's activities consist solely of providing wires, cables or other communications channels for the use of others. It is not clear that this exemption will apply to service providers in the on-line services environment.

Liability for contributory or vicarious infringement is premised on the notion that the carrier or on-line service provider who provides a bulletin-board service, for example, has the ability to supervise each and every transmission. With hundreds of thousands of transmissions each day, it will be physically impossible for access and on-line service

providers to supervise or monitor each and every such transmission. Further, a large portion of such transmissions may be encrypted or in other formats that require that someone to open and review each transmission. Access and on-line service providers should not be liable for contributory or vicarious infringement unless they have actual knowledge of an infringing transmission and have failed to remove it. To ensure this outcome, the bill must be amended to require actual knowledge on the part of the access or on-line service provider.

At the center of the controversy created by this legislation is the requirement that Pacific Bell Internet Services act as judge and censor. Pacific's customers have a reasonable and time honored expectation that confidential transmissions over our networks will remain confidential. They expect that their data communications will be accorded the same degree of privacy as communications transmitted over our voice networks. Without our requested amendments, Pacific Bell Internet Services would be placed in a position where the company might have to invade that privacy and pass judgment on the content of communications. And the company might have to do so without competent notice by a copyright holder that tells us, and the customer, what must be done.

If this legislation is adopted without amendments, we will be under a continual barrage of law suits for copyright infringement. It makes no difference to us as business people whether the suits allege direct, vicarious, or contributory infringement -- a suit is

a suit. It will increase our cost of doing business and leave us with fewer resources to put into our network and services. The bottom line is that our Internet business may very well be impaired, along with technical innovation, if the costs of defending copyright infringement suits are more than the business is worth.

The Lehman "White Paper" states that the best policy is to hold the on-line service provider liable for copyright infringement by its subscribers:

On line service providers have a business relationship with their subscribers. They -- and, perhaps, only they -- are in the position to know the identity and activities of their subscribers and to stop unlawful activities. And, although indemnification from their subscribers may not reimburse them to the full extent of their cost of doing business, they are still in a better position to prevent or stop infringement than the copyright owner. Between these two relatively innocent parties, the best policy is to hold the service provider liable.¹

H.R. 2441 incorporates this policy and extends it to Internet access and other NII network providers. This standard unreasonably places the responsibility of copyright enforcement on the network provider. An Internet access provider such as Pacific Bell Internet is not necessarily in a position to prevent or stop copyright infringement. For example, a subscriber who uses Pacific Bell Internet Services as an Internet service provider could obtain infringing material off the Internet, and download it to a PBI file server. He could then immediately re-transmit the infringing material to another subscriber on a network that PBI does not control, and delete the offending copy located

¹ Bruce A. Lehman, Chair, Intellectual Property and the National Information Infrastructure, The Report of the Working Group on Intellectual Property Rights, Information Infrastructure Task Force, September, 1995, p. 117.

on the PBI file server. In this situation, PBI would not necessarily be in a position to prevent or stop the infringement. How would PBI enforce copyright if the offending material resided on PBI's server for only a brief period of time, and now resides on a server over which PBI has no control?

In other situations, in order to protect itself from liability, PBI might be forced to delete a file which the subscriber has downloaded with the full knowledge and permission of the copyright owner. The Lehman "White Paper" suggests that there might be an equitable solution. The copyright holder could be required to give PBI competent notice, which would be necessary for PBI to insulate itself from liability.

The "White Paper" suggests that "...on-line service providers can certainly investigate and take appropriate action when notified of the existence of infringing material on their systems and thus limit their liability for damages to those for innocent infringement"². Pacific Telesis Group will go on record as being willing to seek an equitable solution by submitting a legislative amendment which would place obligations on both service providers and copyright owners to prevent infringing works from remaining on the network, if, and only if, service providers are given an exemption from liability if they take action in response to notice of infringement. A limitation of liability for innocent infringement would not insulate service providers from a judgment of liability, nor would it insulate them from the substantial costs of litigation. This

² Ibid., pps. 116-117.

approach would not be inconsistent with the "White Paper". Our amendment (See Appendix I) would have these goals:

1. Exemption from liability where the Internet Service Provider is only providing in-bound or out-bound access or connection to facilities, systems, or networks which it does not control;
2. Exemption from liability where Internet Service Provider has no authority to deny access, or where it is not technically feasible to restrict access;
3. Protection for any "good faith" actions that an Internet Service Provider might take in response to competent notice from copyright owners; and
4. Establish adequate notice requirements for copyright holders.

One group, in particular, has urged caution in this matter. In its first report issued in March, 1995, the National Information Infrastructure Advisory Council endorsed a view, which we also hold, that great caution is advisable when making laws about the way Americans can share, trade or otherwise communicate information. The Advisory Council is a thirty seven member body representing a diverse group of leading experts in NII related fields and has the responsibility of advising the Administration on a national strategy for promoting the development of the NII and the Global Information Infrastructure. The Advisory Council is anticipating further discussion of NII intellectual property issues in its upcoming March 1996 policy report.

CONCLUSION

Pacific Telesis Group asks that that no action be taken on this legislation until members have had a chance to review the recommendations from the NII Advisory

Group during the first quarter of 1996. We urge the committee to support a comprehensive hearing for the purpose of thoroughly scrutinizing the full range of intellectual property issues.

Pacific Telesis Group urges the committee to adopt amendments that will provide Internet Service Providers with relief from liability for vicarious, contributory, or direct copyright infringement. We are willing to communicate with other interested parties and work on a fair and balanced amendment that is fair to all concerned parties. The amendments we propose are critical to our business in this emerging market, and are consistent with the "White Paper".

DRAFT AMENDMENT TO H.R. 2441, NII Copyright Protection Act of 1995

Title 17 is amended with the following new section:

§ 110 (A) Limitations on Exclusive Rights: Exemption for Service Providers

(a) **IN GENERAL** — Notwithstanding any inconsistent provisions of Titles 17 or 18 of the United States Code, a Service Provider is not an infringer of a copyright, nor an offender under any related law, regulation, or doctrine (1) unless the Service Provider fails, within a reasonable period of time after receiving actual notice of an alleged copyright infringement under subsection (c), to remove, block, or disable access by users to such material residing on a facility, system or network in whole or in part owned, controlled or operated by the Service Provider or (2) if the Service Provider, with respect to the specific material alleged to infringe copyright, solely provides access or connection, including transmission, processing, downloading, intermediate storage, access software, or other related capabilities that are incidental to providing such access or connection, to or from a facility, system or network not under the Service Provider's control.

(b) **EXCEPTION** — A Service Provider is not liable for failing to remove, block, or disable access by users to material specified in subsection (a) (1) if the Service Provider does not have the authority to remove, block, or disable access by users to such material, or if taking such action to remove, block or disable access by users to such material is not technically feasible or would materially impair other content, products or services.

(c) **NOTICE OF ALLEGED COPYRIGHT INFRINGEMENT TO BE GIVEN TO SERVICE PROVIDER BY THE COPYRIGHT OWNER** — For purposes of this section, a Service Provider shall not be deemed to have received actual notice of material alleged to infringe copyright unless the notice:

- (1) is issued by the copyright owner;
- (2) is in writing, certified under penalty of perjury as true and correct;
- (3) states that, on due inquiry, the copyright owner has determined that the material infringes copyright and is believed by copyright owner to be without a defense;
- (4) requests that the Service Provider remove, delete, or delete or disable access by users to the material;
- (5) provides proof of copyright ownership;
- (6) with the exception of claims of infringement of copyright in Berne Convention works whose country of origin is not the United States, includes proof of federal registration;
- (7) includes a copy, in the pertinent part, of the work allegedly infringed.
- (8) It identifies the precise location of the allegedly infringing material so that the Service Provider will be able to locate the material and independently remove it, block it, or disable access by users; and
- (9) It is sent to the individual identified to the copyright owner as responsible for copyright matters on behalf of the Service Provider in accordance with rules promulgated by the Copyright Office;

(D) PROTECTION OF “GOOD FAITH” ACTION TO DELETE, REMOVE OR RESTRICT ACCESS TO ALLEGEDLY INFRINGING MATERIAL – No Service Provider shall be held liable on account of any action taken in good faith to remove, delete, or disable access by users to works residing on a facility, system or network in whole or in part owned, controlled, or operated by the Service Provider pursuant to subsection (a). Any such action pursuant to subsection (a), or failure to act pursuant to subsection (b), shall in no way diminish the Service Provider’s status as a passive carrier, as defined in Section 111 (a)(3) herein or affect its rights as defined in Section 1114 of Title 15 of the United States Code.

Sec. 2 Transmission of Copies

(a) **DISTRIBUTION** – Section 106(3) of Title 17, United States Code is amended by striking “or by rental, lease or lending” in the first sentence and by inserting “by rental, lease or lending, or by transmission.”

(b) DEFINITIONS --

(1) Section 1012 of Title 17, United States Code, is amended --

(i) by striking “or rental, lease or lending, or by transmission” in definition of “publication”; and

(ii) by inserting at the end of the definition of “transmit” the following: “To ‘transmit’ a reproduction is to initiate the distribution of it by any device or process whereby a copy or phonorecord of the work is fixed beyond the place from which it was sent.”

(ii) **IMPORTATION** – Section 602 of Title 17, United States Code, is amended by inserting “whether by carriage of tangible goods or by transmission,” after “Importation into the United States.”

(2) Section 101 of Title 17, United States Code, is amended by adding at the end the following:

The term “Service Provider” means any provider of service or transmission capacity, including but not limited to, data, voice or video that leases, enables, facilitates or provides hosting services or provides, facilitates or enables access by multiple users to a server, including but not limited to a service, software or system that provides access via a Service Provider’s facilities, system or network. The term “Service Provider” shall include such provider’s employees or agents, acting with the scope of their employment or agency, or independent contractors.”

Cincom Systems, Inc
Government Systems Division
4000 Legato Road
Suite 900
Fairfax, Virginia 22033

February 15, 1995

Honorable Carlos J. Moorhead
Chairman, Subcommittee on Courts and Intellectual Property
Congress of the United States
House of Representatives
Committee on the Judiciary
2138 Rayburn House Office Building
Washington, DC 20515-6216

Dear Representative Moorhead:

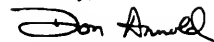
Cincom Systems, Inc. has reviewed H.R. 2441, the "NII Copyright Protection Act of 1995," and the earlier background document prepared by the Information Infrastructure Task Force, "Intellectual Property and the National Information Infrastructure." We appreciate the opportunity to participate in the legislative process.

As I stated in our November 15 letter to Mr. Glasier of the Committee staff, Cincom supports this legislation. As a manufacturer and distributor of software, the issues of intellectual property rights are essential to our existence as a commercial entity. Especially as transmission and reproduction of digital information becomes more the norm for day-to-day operations, we are both optimistic and anxious as to the impacts on our core business. As the software industry adopts more efficient and more competitive processes for our operations, we are keenly aware of impacts on our primary products. This legislation, by including "transmission" as a violation, heightens the protection afforded to intellectual property such as the software, while allowing us the flexibility to improve the efficiency and productivity of our organization in supporting our customers.

As events in the Digital Revolution accelerate the pace of change in our business and indeed throughout our daily lives, protection for the transmission of information and content that is our primary commodity is reassuring.

Again, thank you for the opportunity to state our position in favor of this legislation.

Sincerely,



Donald J. Arnold
CINCOM

February 15, 1996

The Honorable Carlos Moorhead
Chairman, House Judiciary Subcommittee
on Courts and Intellectual Property
351 Rayburn House Office Building
Washington, D.C. 20515

Chairman Moorhead:

Bell Atlantic appreciates the opportunity to submit comments on H.R. 2441, the NII Copyright Protection Act of 1995. Bell Atlantic is a leading international telecommunications company, a provider of NII network infrastructure and the owner of invaluable intellectual property assets. Bell Atlantic will be a major player in the provision of local and long distance telecommunications services, internet access services, on-line and other interactive services, world wide web services, video dialtone and distance learning services, to name a few.

Bell Atlantic has actively followed and provided comments on the complex liability issues raised by H.R. 2441 since the introduction of the Administration's Green Paper on Intellectual Property and the NII. As an intellectual property owner, we fully support the need to protect the rights of copyright owners in the digital environment. We would intend to rely on those same rights in enforcing any infringing uses of Bell Atlantic works, which may occur from the ease of digitized copying.

It is obvious, however, that the line between content owners and Service Providers is becoming increasingly blurred -- Service Providers are also content owners and content owners are beginning to offer on-line services. Consequently, it would be shortsighted for all parties not to recognize that there must be a careful balance among the rights of copyright owners, information distributors or conduits (hereinafter "Service Providers") and users. Unfortunately, H.R. 2441, in its current form, and the White Paper's mandate that strict liability should always attach to Service Providers, will significantly alter existing law, add further confusion to an already unclear and growing body of case law, and inappropriately tip the Copyright Act's carefully crafted balance of rights in the favor of content owners. This imbalance will create overwhelming

disincentives for Service Providers such as Bell Atlantic to provide the fully interactive services envisioned by the NII.

For the reasons discussed below, Bell Atlantic urges this Subcommittee to take immediate action to even the scales by amending H.R. 2441 to clarify the boundaries of on-line Service Provider liability. Although the recent passage of the "Telecommunications Act of 1996" has opened the door for the development of a broad expansion of competitive services in the digital arena, the failure to address this critical issue of copyright law will likely chill the development of on-line services to their full potential.

At the hearings on H.R. 2441 before this Subcommittee, various content owners opposed a prompt resolution of the on-line liability issue, the reasons for which can be reduced to three basic arguments: (1) H.R. 2441 does not change the existing standard of liability under current law; (2) it is premature to address the issue now because there is not yet enough developed case law; and (3) an exemption from liability will encourage Service Providers to avoid their responsibilities and provide them with an incentive to ignore instances of infringement. These arguments, however appealing they may appear at first glance, are simply unfounded. A careful analysis will reveal that on-line service provider liability is an issue in need of an immediate legislative fix.

Why H.R. 2441 Fundamentally Alters the Standard of Service Provider Liability

It has been stated that the pending legislation is not intended to alter the copyright liability standard for Service Providers. Although this may not have been the intention or purpose behind the bill, the plain meaning of statutory language in the bill itself fundamentally alters the status of Service Provider liability. The addition of the term "transmission" to the copyright owner's exclusive rights of publication and distribution in Section 106 of the Copyright Act was intended to "clarify" that the copyright owner's rights equally extended to the act of transmission. The flip side of this "clarification" is that an unauthorized act of transmission has now been defined as a direct infringement of the copyright owner's rights. A Service Provider, by definition, is in the

business of transmission. Thus, a Service Provider who transmits infringing material over its facilities -- even unknowingly -- is now for the first time, facing liability for direct infringement as well as contributory infringement. It will only be a matter of time before courts increase the level of Service Provider liability based on the perhaps unintentional plain meaning of this statutory language.

The White Paper, which accompanies H.R. 2441 also severely alters the state of existing law by rejecting an actual knowledge standard for liability (see discussion of Netcom and case law below), and concluding that as between innocent parties, "the best policy is to hold the service provider [strictly] liable." Final Report of the Working Group on Intellectual Property ("White Paper") at 117. The White Paper ultimately promotes a deep pocket-based system of liability. We cannot underestimate the impact that the White Paper's pronouncement on strict Service Provider liability is already having and will continue to have on the state of copyright law. The White Paper's policy on liability is now being heavily relied on and cited as authority in plaintiffs' briefs and even in court decisions. See Religious Technology Center v. Netcom On-Line Communication Services, Inc., 907 F. Supp. 1361 (N.D. Cal. 1995). It will no doubt continue to alter the judicial decisions in this area to the severe detriment of Service Providers. Consequently, we cannot be content to adopt a "wait and see" approach on the important issue of liability. Although this issue has been described as a car that need not be coupled to the train of H.R. 2441, it would be foolhardy to fail to address this issue now when we can all clearly see the collision ahead.

On-Line Liability Case Law and Why it is Imperative that This Issue Be Addressed as Part of H.R. 2441

It has been argued that because the number of cases in the on-line liability area has not reached a certain threshold, it is premature to resolve this issue in H.R. 2441. Rather, it is suggested that the case law should continue to be carefully monitored until some unspecified future date. Because H.R. 2441 will increase liability for Service Providers due to its statutory language and the White Paper's mandate for strict liability, however, this issue has never been more ripe for resolution than it is today. The current on-line liability cases, which have been emerging

at a rapid pace in the past two years, is far from a unified body of law. A significant conflict between two recent cases in the on-line liability area adds further confusion to this already muddled area.

In the case of Playboy Enterprises, Inc. v. Frena, the court held that the mere fact that the defendant operated a bulletin board service was all that was required to find infringement -- "it does not matter that Defendant Frena may have been unaware of the copyright infringement." 839 F. Supp. 1552, 1559 (M.D. Fla. 1993)(emphasis added). This case has been widely criticized and rejected by subsequent cases as contrary to established law, but may now in fact be resurrected by the strict liability policy endorsed by the White Paper.

On the other hand, the very recent decision of Religious Technology Center v. Netcom On-Line Communication Services, Inc., 907 F. Supp. 1361 (N.D. Cal. 1995), provided the most detailed analysis of the on-line liability issue to date and rejected the Frena approach. The court in Netcom required the existence of "actual knowledge" and a finding that the Service Provider refused to take action after acquiring such knowledge before contributory infringement can be found. Other cases have since followed. See Religious Technology Center v. F.A.C.T.NET, Inc., 36 U.S.P.Q.2d 1690 (D. Col. 1995); Religious Technology Center v. Lerma, 37 U.S.P.Q.2d (E.D. Va. 1995). It is also important to note that many cases have unfortunately never been fully litigated because the Service Provider settled out of court due to fear of excessive liability. See Frank Music Corp. v. CompuServe, Inc., Civil Action No. 93, Civ. 8153 (S.D.N.Y. 1993); Religious Technology Center v. Lerma, Digital Gateway, et. al, Civil Action No. 95-1107A (E.D. Va. 1995)(internet access provider settled copyright infringement claim).

Content owners, again citing conclusions in the White Paper, have also argued that strict liability for Service Providers should be preserved because the Copyright Act does not provide for significant damage awards and permits the assertion of the "innocent infringement" defense. This argument is irresponsible and does not consider practical business realities. The effect that litigation will have on the emerging Service Provider business cannot be underestimated. The Copyright Act provides for awards of actual damages, including the defendant's profits, statutory

damages and attorney's fees. Proponents of Service Provider liability also fail to mention that many courts have used their discretion to award copyright damages on a per infringement basis. In the digital environment, in which thousands of copies, hence infringements, may be distributed simultaneously at the push of a button, the cumulative effect of these damage awards will be staggering. The multitude of start-up on-line companies, such as the many small internet access companies, would quickly be forced out of business by the costs of defending any continuing copyright litigation.

It is also curious to observe that if the Copyright Act's damage awards were as insignificant as some make them out to be, copyright owners would not have silently accepted these remedies since the inception of the 1976 Copyright Act as recompensation for wrongs committed. The availability of the "innocent infringer" defense is also of little comfort to a Service Provider community which will be facing an onslaught of litigation. It is important to note that the defense does not affect a court's finding of liability, but only the amount of damages awarded by the court. Also unmentioned are the huge financial resources, increased costs, disruptions and corresponding bad will which will inevitably result among Service Providers, users and content owners from these misdirected and unnecessary lawsuits.

It is also entirely reasonable to assume that the amount of litigation in this area will increase significantly in the future. The need for H.R. 2441 is based on certain premises, one of which is that the NII will not grow unless new legislation is created to encourage copyright owners to place their copyrighted "crown jewels" on the NII. See Prepared Statement of Jack Valenti, Chairman and CEO, MPAA. The corollary to this premise is that the increased placement of "crown jewels" on the NII will certainly result in a corresponding increase in litigation resulting from unauthorized uses of such works. The complexities of liability issues, including the determination of when and how a Service Provider receives actual knowledge, could be litigated and remain unresolved for years. Just as content owners would not accept a "wait and see" approach on the issue of placing their valuable content on the NII, likewise, the "wait and see" solution in the area of Service Provider liability would clearly be irresponsible and cause immense

damage to this equally important and emerging line of business.

Why Resolving the Liability Dilemma Will Clarify and Fairly Balance Service Provider and Content Owner Responsibilities

It has been argued that Service Providers should not be given relief from liability because such relief would allow the Service Provider to "avoid responsibility" or create an "incentive for ignorance." It was asked at the hearings, "Who will be responsible?" We would argue that under a balanced system of copyright law, both content owners and Service Providers may have differing but equally important responsibilities with respect to enforcing, protecting and deterring infringements. It should be made clear that Bell Atlantic and other Service Providers merely seek legislative relief from misdirected liability and certainly support taking whatever good faith reasonable steps are necessary to discourage or prevent infringement. Bell Atlantic promotes good, responsible corporate citizenship for itself and others and endorses copyright management information systems, copyright education for the public and other technical means of deterring infringement, including the use of encryption.

In an attempt to seek an amicable resolution of this issue, Bell Atlantic, along with a broad group of telecommunications companies, internet access providers and on-line service providers, drafted a legislative proposal, which was discussed by Congressman Boucher at the recent hearings. This proposal was intended to serve as a starting point for good faith discussions between Service Providers and content owners, with the intention of reaching a prompt and mutually acceptable resolution to the on-line liability issue. The proposal seeks relief from liability for those entities who, with respect to a particular infringing act, solely provide the access or connection to a facility, system or network not under the Service Provider's control. For all other Service Providers, the proposal clarifies the issue of contributory infringement by codifying the actual knowledge standard recognized by many, including the court in the Netcom decision, as a prerequisite to liability. At the hearings on H.R. 2441, content owners, including Jack Valenti, testifying on behalf of MPAA, stated that "no court has ever found an on-line Service Provider guilty except where the provider participated or was actually

aware of the infringing activity." Although the case law in this area suggests otherwise, a codification of the actual knowledge standard will go a long way in clarifying the boundaries of liability.

As Stephen Heaton, General Counsel for CompuServe testified at the hearings, the failure to address the issue of liability will actually result in a wholesale shifting of all responsibility for policing and enforcing violations of copyright from the copyright owner to the Service Provider. Given the technical realities of digital, real-time on-line services, Service Providers will not, except in rare cases, be in a position to assess whether a particular transmission is a violation of copyright law. If for example, a user of an on-line service transmits to another user an Ansel Adams photograph, which he or she then digitally alters into a new photograph, the Service Provider, in the absence of actual knowledge of infringement from the copyright owner, must somehow bear omniscient responsibility for determining that (1) this particular file out of thousands transmitted that day contains a suspicious digital photograph, which the Service Provider must translate from binary code to visual form in order to read; (2) such photograph is a valid and subsisting copyrighted work of Ansel Adams; (3) the digitally altered work was an unauthorized derivative work that violates the copyright law; and (4) there are no defenses to the user's transmission of this work, including fair use, copyrightability, public domain issues, parody or license rights, to name a few. It is clear that the issue of "responsibilities" is not clean cut and cannot be used as a means of usurping the traditional role of a judicial tribunal in providing substantive analyses of complex copyright infringement disputes.

The argument that the Service Provider somehow seeks to avoid responsibility is further complicated by a general lack of awareness that potential conflicts may arise between the responsibilities content owners would like Service Providers to take under the copyright law and potential violations of other laws and regulations. One witness at the hearings used the example in his testimony that a Service Provider was informed of infringing material attached to an e-mail message and took no action to remove it. Service Providers, including Bell Atlantic, certainly would like to cooperate with content owners to the extent they can to prevent and remedy infringements. Few realize, however, that the Service Provider,

by even opening an electronic e-mail message, could be in violation of the Electronic Communications Privacy Act or various other laws, including state privacy statutes. Likewise, actions taken to cut off service to a user because of a copyright violation, could, in certain instances, violate the common carrier obligations that the Service Provider must follow under other laws and regulations. In such situations, the Service Provider may be in the untenable position of violating either the Copyright Act or other federal and state laws or regulations, which could invoke additional liabilities and even criminal penalties.

Bell Atlantic welcomes the opportunity to sit down and work out a prompt resolution of this issue with content owners. It should be made clear that the former discussions held between content owners and Service Providers, which content owners referred to in the hearings as an excuse for delaying this issue, did not in any way discuss or seek a resolution on the issue of liability. Nor is it likely that the issue will be resolved without legislative efforts and involvement. If the liability issue is not addressed in H.R. 2441, it is unlikely that content owners will ever relinquish the enviable position of being able to sue the deep pocket Service Provider for each and every infringement regardless of actual knowledge without any corresponding responsibilities of their own. If we are to truly address the far-reaching copyright issues surrounding the development of the NII, we must balance the concerns of owners, Service Providers and users and get this legislation right the first time.

SINCERELY,



SARAH DEUTSCH
(FOR) BELL ATLANTIC CORPORATION



February 15, 1996

Supporters

Include:

The Honorable Carlos Moorhead, Chairman
 The Honorable Patricia Schroeder, Ranking Minority Member
 Subcommittee on Courts and Intellectual Property
 U.S. House of Representatives
 B-351A Rayburn House Office Building
 Washington, DC 20515

Cox Enterprises, Inc.

General Instrument Corp

Information Industry
 Association

Interactive Digital
 Software Association

International Business
 Machines Corporation

Magazine Publishers
 of America

McGraw-Hill, Inc.

Microsoft Corp

Motion Picture
 Association of America

National Cable Television
 Association

National Music
 Publishers' Association

Newspaper Association
 of America

Recording Industry
 Association of America

Software Publishers
 Association

Time Warner Inc

Times Mirror Co

Turner Broadcasting
 System, Inc

Viacom Inc

West Publishing Co

Kenneth R. Kay,
 Executive Director

RE: H.R. 2441, NII Copyright Protection Act

Dear Chairman Moorhead and Mrs. Schroeder:

The Creative Incentive Coalition (CIC) appreciates this opportunity to submit its comments for the record of the recently concluded hearings on H.R. 2441, the NII Copyright Protection Act.

CIC is a broad-based copyright industry coalition which supports strong copyright protection for works on the National and Global Information Infrastructure. A list of CIC members is attached.

CIC strongly supports the thrust of H.R. 2441, and commends you for your leadership in introducing the bill and conducting timely and comprehensive hearings on it. This legislation proceeds from two premises with which CIC fully agrees:

First, strong protection for intellectual property is essential if the full potential of the National Information Infrastructure is to be realized;

Second, current copyright law, with a few important amendments, works well to provide that protection.

H.R. 2441 provides the needed "digital update" to the Copyright Act. Its prompt enactment will send a powerful message, both within the United States and throughout the global marketplace, that respect for intellectual property is a fundamental "rule of the road" on the information superhighway. Modernization of our law will provide a valuable model to other countries, and to international organizations such as the WIPO, as they grapple with the challenge of adapting copyright norms to the Global Information Infrastructure.

The Honorable Carlos Moorhead
 The Honorable Patricia Schroeder
 February 15, 1996
 Page 2

The NII Copyright Protection Act will also help stimulate research and development on new technology to protect copyrighted works from infringement, and on new systems to facilitate and automate the management of copyrights, in the advanced, digital network environment. Finally, enactment of this important legislation will give a strong boost to efforts to educate members of the public -- in their roles as consumers, students, researchers, business people, and citizens -- in the importance of respect for copyright.

As Chairman Moorhead noted at last week's hearings, the copyright industries play an increasingly important role in the U.S. economy, and are a major export earner for the U.S., racking up a substantial positive balance of trade. Digital networks offer an exciting opportunity for even broader and more efficient distribution of the fruits of American creativity, both here and around the world. But the same technological advances that open up these new opportunities also underscore the vulnerability of our copyright industries to new forms of piracy and other abuses of intellectual property rights. This vulnerability will cloud the bright prospects and undermine the exciting potential of the NII and GII, unless we succeed in using law, technology and public education to promote a more favorable climate for intellectual property in cyberspace. Your legislation is a crucial first step toward advancing that goal.

For all these reasons, we commend the subcommittee for its vigorous efforts to move the legislation forward, and urge you to continue progress toward enactment on an expeditious schedule.

The three hearings held by the subcommittee featured extended discussion on several important issues, some of which we discuss below. While a few of these topics directly concern provisions contained in H.R. 2441, most of them involve issues that the sponsors originally chose -- wisely, in our view -- not to address in legislative form at this time. CIC commends you for looking into these issues, and in urging proponents to come forward with specific proposals for amendments, in legislative language, as soon as possible. We look forward to reviewing any such proposals and hope that you will call upon us if we can assist you in evaluating them. In the meantime, we are pleased to offer the following comments:

1. Online Service Provider Liability

Even before the release of the Administration's White Paper which formed the basis of H.R. 2441, CIC identified the critical importance of this issue. Many CIC members are deeply involved in the online service industry, either as operators of services and/or as content providers who use these services to distribute material to growing markets. Furthermore, we have long recognized that content owners and online service providers (OSPs) have a strong common interest in promoting respect for intellectual property in the online networked environment, and a common goal of preventing copyright infringement on networks to the greatest practical extent.

The Honorable Carlos Moorhead
 The Honorable Patricia Schroeder
 February 15, 1996
 Page 3

Spurred by this recognition, CIC reached out more than six months ago to the leading association representing the major commercial OSPs -- the Interactive Services Association -- and began a dialogue with them on issues of mutual concern. We have held several lengthy meetings, which we believe have been informative and useful to participants on both sides of the table. Besides CIC members and the major commercial OSPs, such as CompuServe, American Online and Prodigy, participants have included representatives from AT&T, MCI, Bell Atlantic, Netcom, and the Commercial Internet Exchange. Our discussions have covered a broad range of complex issues. Most recently, we have focused on a proposed joint statement of principles, covering topics such as education, training, parameters of responsibility, complaint handling, hyperlinking and pointing, e-mail and chat rooms, enforcement cooperation, and technological means; and on a detailed proposal for a mutually agreeable protocol on OSP handling of infringement complaints submitted by copyright owners.

While we would be glad to provide you or your staffs with more details about these discussions, the foregoing should suffice to demonstrate that the copyright community has been neither dilatory nor passive with regard to discussion of this important issue. Nor have we "rebuffed" participation by any interested party, although we did make the decision that the discussions would have a greater chance of success if they began with ISA, a broadly representative group whose interests with regard to this legislation are nevertheless intensely focused on the OSP liability issue.

CIC welcomes the suggestion, made by several members of the subcommittee, that it is time to open up this ongoing discussion to other participants with a stake in the outcome, and to conduct it henceforth under the sponsorship and guidance of your subcommittee. Whether this takes place under the auspices of a formal commission, as suggested by Representative Goodlatte during the hearings, or whether the discussions are conducted more informally through the good offices of subcommittee staff or of an expert agency such as the Copyright Office, we are ready, willing, and able to move the discussions to a new forum. We are also prepared to begin this new phase of discussions immediately and to proceed on an expeditious timetable. At the same time, we encourage the subcommittee to move ahead with prompt action on the important statutory changes that would be made by H.R. 2441, which should not be delayed even if the subcommittee-sponsored dialogue on this topic has not reached a resolution. This course of action would be fully consistent with your viewpoint, expressed at the hearing, on the importance of timely action by the U.S. to blaze the policy trail for copyright in the new networked environment.

2. Prohibition on Protection Circumvention Devices/Services (Section 1201)

As Congress takes the first steps along the road toward adapting copyright law to the digital networked environment, few missteps could be more dangerous than failing to provide copyright owners with adequate legal tools to protect and enforce their rights. New technology offers

The Honorable Carlos Moorhead
 The Honorable Patricia Schroeder
 February 15, 1996
 Page 4

intriguing new opportunities for doing this, but this technology cannot possibly succeed in a legal vacuum. Copyright owners who choose to place their copyrighted works in protective envelopes, or to protect them through electronic locks, must have recourse against those who make it their business to use their own technology to steam the envelopes open or to pick the locks. Furthermore, an important goal of this legislation is to stimulate more research and development into a variety of competitive technological solutions to the problem of network piracy.

For these reasons, the prohibition on protection circumvention devices or services contained in proposed new section 1201 is an indispensable feature of your legislation. It must be strengthened, not weakened, if the goals of H.R. 2441 are to be achieved. The major improvement that needs to be made is to make criminal penalties available in appropriate, serious cases involving use of protection-defeating technology by copyright pirates. Additionally, the "primary purpose or effect" test should be refined to make it more susceptible of proof. CIC is preparing specific proposals for amendments to this important section of the bill.

In the meantime, CIC urges you to reject proposals to weaken Section 1201, such as by exempting from liability any devices or services that cannot be proven to have as their primary purpose the facilitation of copyright piracy. Such a flimsy standard of liability would offer an effective safe harbor to any pirate savvy enough to create a "paper trail" of other "purposes" ostensibly motivating the manufacture or distribution of a circumvention device or service.

We also look forward to reviewing any specific suggestions that may be proffered for changes to Section 1201. If, however, these proposals are based on the notion that the prohibition should only cover devices or services specifically designed to overcome a single, specific standard of protective technology, they will have completely missed the point of your legislation. Today, a variety of encryption and other copyright protection solutions are vying for acceptance in a competitive marketplace. Congress should seek to foster and promote this competition, not penalize copyright owners just because protection technology has not yet coalesced around a single standard.

While the Audio Home Recording Act of 1992 has been cited as a precedent, the challenge of network-based digital piracy today is much different. The signal piracy provisions of the Communications Act (47 USC 605(e)(4)) offer a much more relevant precedent, since they apply to devices or equipment that overcome any kind of encryption that the satellite cable programmer chooses to employ. Copyright owners need legal tools to crack down on sophisticated high-tech pirates; it should not make any difference whether the copyrighted material is distributed via satellite to a television set, or via modem to a computer.

The Honorable Carlos Moorhead
 The Honorable Patricia Schroeder
 February 15, 1996
 Page 5

3. Copyright Management Information

As a practical matter, many of the most challenging copyright problems presented by the new digital networked environment can be substantially ameliorated by innovative uses of technology. Advanced copyright management information (CMI) systems have the potential to make it inexpensive and easy for copyright owners to securely label works on the information superhighway with ownership information, and to offer network users the opportunity to license specified uses of these works efficiently. Your bill wisely recognizes that such copyright management systems, which could take a wide variety of forms, need legal protection against those who might choose to tamper with them or misdirect the revenue streams generated by automated licensing procedures, and proposes a new section 1202 to Title 17 for this purpose.

CIC strongly supports the goal of section 1202. The Register of Copyrights, and other witnesses, have already suggested some ways in which the proposed section 1202 could be improved. CIC will coordinate with the Copyright Office in preparing its own suggested improvements that will clarify the definition of CMI, and make this provision more flexible and effective for copyright owners who choose to employ CMI systems.

4. Library Exemptions

CIC supports the intent of H.R. 2441's proposed amendment to section 108 of the Copyright Act. The Copyright Office, in its testimony, proposed an amendment to the bill to clarify that the expanded exemption to allow some digital copying by libraries applies only to archival and preservation activities, not to distribution. In principle, CIC supports the approach of this amendment, and looks forward to working with the Copyright Office on it. It is important to ensure that any revisions to section 108 of the Copyright Act do not encumber the right of copyright owners to control electronic distribution of their works.

5. Publication

As part of its overall support for clarifying exclusive rights over distribution of copyrighted materials by transmission, CIC supports the expanded definition of publication, even though, as the White Paper points out, it may have some negative effect on copyright owners in some circumstances. If some works that are only distributed online are defined as published, they will become subject for the first time to the requirement of mandatory deposit of copies with the Library of Congress (LC) under 17 USC 407. This could create some practical problems, both because the LC would be obtaining copies of this material without having agreed to license restrictions applicable to all other recipients (including other libraries), and because LC may not be in a position to efficiently add all this material to its collections, which is the legal justification for the mandatory deposit requirement. In the 103rd Congress, when the House last considered a proposal to make

The Honorable Carlos Moorhead
 The Honorable Patricia Schroeder
 February 15, 1996
 Page 6

works distributed online subject to mandatory deposit, it wisely foresaw these practical problems, and provided for a joint industry-LC study to iron them out before the expanded mandatory deposit requirement took effect. CIC urges that a similar approach be taken with regard to the expanded definition of publication in this legislation.

6. Exceptions for Visually Impaired

CIC supports the substitute provision negotiated among the groups representing the visually impaired, publishers, Library of Congress, and other interested parties, and presented at the hearing on February 8.

7. Criminal infringement

The decision of the U.S. District Court in U.S. v. LaMacchia, 871 F.Supp. 535 (D. Mass. 1994), is widely perceived as opening a serious loophole in the criminal infringement provisions of the copyright law. In the NII environment, a new breed of copyright pirates has arisen, who use bulletin board services and other techniques to make valuable unauthorized copies of works available to others, but cannot themselves be proven to have reaped a profit from doing so. Your legislation would be the most appropriate vehicle for plugging this loophole, which the White Paper identified as "a serious lacuna in the criminal copyright provisions." Indeed, without fixing the LaMacchia problem, your goal of providing a solid basis for protecting intellectual property rights in cyberspace cannot be fully achieved. CIC urges the subcommittee to respond to the LaMacchia decision through an amendment to this legislation; we suggest as a model the provisions of S. 1122, introduced by Senator Leahy with the backing of the Justice Department, which allows for criminal prosecution of serious online piracy without the necessity to prove the defendant's "commercial advantage or private financial gain."

8. Fair Use

CIC believes that your decision to omit from H.R. 2441 any amendment to the statutory provisions on fair use was a wise one. Nothing in the legislation you have introduced either expands or diminishes the fair use privilege as reflected in section 107 of the Copyright Act. We also believe that the deliberations of the Administration's Conference on Fair Use (CONFU), and of some of the satellite fora dedicated to particular fair use issues, such as the Fair Access Working Committee of the Consortium of College and University Media Centers (CCUMC), have been valuable and productive. Many CIC members have joined with a broad spectrum of educational, library, and public interest representatives in participating actively in these fora, and we support their continuation, rather than supplanting them with a duplicative, Congressionally-chartered commission, as some witnesses suggested.

The Honorable Carlos Moorhead
 The Honorable Patricia Schroeder
 February 15, 1996
 Page 7

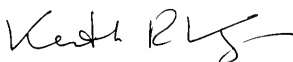
9. Browsing and First Sale

Finally, during the hearings a variety of concerns were raised concerning the impact of the legislation on browsing of copyrighted materials, the first sale doctrine, and distance learning. Rather than responding in detail to all of the hypothetical scenarios proffered, CIC simply observes that the real issue raised by these examples is not the proper scope of copyright protection, but the value of a clearer demarcation of which rights, if any, the owner of copyrighted materials wishes to assert. This is precisely why the development of copyright management information systems is such a vital element in growth of the NII and GII. Such systems would allow copyright owners to label their works with clear, commonly accepted statements of who could exercise which rights in the work, and where applicable, at what license fee. At a much more rudimentary level, generally accepted protocols for disclaimers of rights -- or, put another way, gratuitous permissions for exercise of rights -- that authors of e-mail messages could attach to their "works" could be developed. Similar protocols could be used in chat areas, Usenet groups, and other regions of cyberspace in which it is expected that participants would choose not to assert some or all of their rights under the Copyright Act. Development and propagation of these protocols would be a much more constructive response to this issue than declaring that the existing rights the law now provides to copyright owners should not apply to the networked environment in the future.

Furthermore, measured by the yardstick of practicality, many of the "solutions" propounded for the "problems" identified come up short. Take, for instance, the idea that the first sale doctrine ought to be modified to allow the one who receives a copy of a work through an electronic transmission to copy and forward it, so long as one "immediately" destroys the first copy one originally received. As a practical matter, this solution seems completely unworkable, and would be virtually impossible to enforce.

In conclusion, the Creative Incentive Coalition commends you for introducing the NII Copyright Protection Act, and for compiling a comprehensive hearing record on it. We greatly appreciate the opportunity to make this contribution to that record, and look forward to working with you and with the staff of the subcommittee and its members toward prompt enactment of this important legislation.

Sincerely yours,



Kenneth R. Kay, Executive Director



Steven J. Metalitz, Counsel

THE CREATIVE INCENTIVE COALITION

Association of American Publishers

Association of Independent Television Stations

Business Software Alliance

Cox Enterprises, Inc.

General Instrument Corporation

Information Industry Association

Interactive Digital Software Association

International Business Machines Corporation

Magazine Publishers of America

McGraw-Hill, Inc.

Microsoft Corporation

Motion Picture Association of America

National Cable Television Association

National Music Publishers' Association

Newspaper Association of America

Recording Industry Association of America

Software Publishers Association

Time Warner, Inc.

The Times Mirror Company

Turner Broadcasting System, Inc.

Viacom Inc.

West Publishing Company

COMMENTS OF THE
CONSUMER PROJECT ON TECHNOLOGY

On H.R. 2441
NII Copyright Protection Act of 1995

Before the Subcommittee on Courts and Intellectual Property
of the
House Committee on the Judiciary

February 15, 1996

The Consumer Project on Technology (CPT) was created by Ralph Nader in 1995 to address the consumer interest in public policy issues related to new technologies. We maintain a Web page on the Internet, at <http://www.essential.org/cpt>, which provides additional information about the CPT and our activities.

The purpose of these brief comments is to express our concerns about several provisions of H.R. 2441, particularly as they relate to innovation in new information technologies, personal privacy, and the public's rights under copyright fair use doctrine.

H.R. 2441 is a product of the highly controversial "White Paper" which was issued by Bruce Lehman, the Assistant Secretary of Commerce and Commissioner of Patents and Trademarks. This report, *Intellectual Property and the National Information Infrastructure*, is considered by many to be an aggressive and one-sided brief against the fair use doctrine and efforts to promote interoperability in information technologies. It is also a proposal that would have far reaching consequences regarding personal privacy.

The legislation purports to "solve" problems presented by the Internet, by creating a new digital "transmission right," in Section 106(3) of title 17, the copyright Act. We are concerned that this new legal right is too broad, and would do much more than give copyright owners greater tools to reduce piracy of copyrighted materials. The new "transmission right," when combined with the very pointed comments of the White Paper about the liability of Internet Service Providers (ISPs), would appear to create a presumption that ISPs or employers would be liable if persons transmitted copyrighted materials over the Internet. This in turn will predictably lead to increased surveillance of how persons use online systems. The ISPs will have incentives to read private electronic mail, or monitor private ftp and http sites on the Internet. Internet mail lists will likely become a focus of much greater review and editorial control, to the detriment of public discourse. One can imagine a virtual end of privacy in electronic communications if ISPs are forced to police every violation of the copyright laws.

If Congress does not want an end of privacy on online systems, then it can solve this one problem. Congress can plainly state that ISPs do NOT infringe on copyrights when their customers simply use their accounts improperly, and that the ISP would not be expected to engage in surveillance of any kind to prevent copyright violations. This is particularly

important because the current appalling lack of privacy protection for persons who use the Internet. If the Congress is not clear on the issue of surveillance, it will be responsible for the predictable problems that will occur.

We agree with those who believe it is premature to decide that every form of digital transmissions would constitute infringements of copyrighted works. The very one-sided presentation of the fair use case law in Bruce Lehman's White Paper obscures the importance of fair use in our daily lives. At present people may, for non-commercial purposes, share copyrighted materials in a variety of ways. The current version of H.R. 2441 would appear to make illegal in an online environment practices which are common today using older technologies, such as using photocopy or fax technologies to send a friend a copy of an article from a hard to find speciality publication. While the Congress may eventually decide that the Internet presents special problems that need to be addressed in legislation, H.R. 2441 does not appear to attempt a balance between the public's traditional rights under fair use and the right of copyright owners to control the dissemination of information. We share the concerns about fair use that were expressed by the American Association of Law Libraries, the American Library Association, the Association of Research Libraries, the Medical Library Association and the Special Libraries Association. It is regrettable that the Subcommittee did not permit any of these groups to testify at the public hearings on H.R. 2441.

The Section 4 provisions in the legislation, which pertain to "Copyright Protection Systems and Copyright Management" are quite broad, and raise a number of problems which have not been resolved. By making it illegal to disseminate software or any device, or provide any service that would

"avoid, bypass, remove, deactivate, or otherwise circumvent, without the authority of the copyright owner or the law, any processes, treatment mechanism, or system which prevents or inhibits the violation of any of the exclusive rights of the copyright owner"

(including the new right of transmission), H.R. 2441 would make a very large number of legitimate and important software devices illegal. Section 1202 of the bill would also make it a crime, punishable by 5 years in prison or \$500,000 in fines if one modifies, removes or alters copyright "management information," regardless of the reasons why this was done. This is defined to include such items as removing not only the name of the author of the work, but such things as the terms and conditions for uses of the work, plus other items.

This would seem to make a person a felon if they copied information from the New York Times Web page, and sent it by electronic mail to their mother. It would also impose very severe penalties on persons engaged in very useful endeavors, relating to software development, or persons who simply wanted to make a copy of public domain court opinion from a commercial database. This entire section of the bill needs much closer study, particularly as it relates to activities that should be allowable under fair use doctrine.

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MCI COMMUNICATIONS CORPORATION

Submission for the Hearing Record

**House Subcommittee on Courts and Intellectual Property
of the
House Committee on the Judiciary**

U.S. House of Representatives

February 15, 1996

MCI Communications Corporation is pleased to present for the Subcommittee's consideration the following submission for the hearing record in order to express its concerns regarding copyright reform legislation.

The architectural structure of the Internet is radically different from any previous communications paradigm (i.e., telephone network or postal service). Essentially, it is a rapidly expanding and evolving, global "network of networks" comprised of numerous players with various roles. Among those existing today are the hardware and software companies that build the network components. Backbone service providers connect the networks through high speed communications links. Online access and service providers allow end users to access this vast network configuration. The issue raised by the proposed legislation relates to the providers of content providers whose creative products promise to enrich the Internet with valuable information.

The "NII Copyright Protection Act of 1995," H.R. 2441, sponsored by Chairman Moorhead, proposes to amend Title 17, United States Code, to adapt copyright law to the digital network environment of the National Information Infrastructure. Among other things, opponents of the legislation believe this legislation effectively grants copyright owners a new exclusive right of transmission, without addressing the liabilities issues created by that right. Proponents of the legislation, however, claim that the proposed modifications merely "clarify" the current copyright statute by codifying recent developments in case law relative to the definition of the existing exclusive right of distribution. Regardless of the terms in which this clarification is couched, the specific extension of this right is problematic given the architectural parameters of the Internet. Moreover, if the intent of the legislation is "mere clarification," then the intended liability that this modification creates should be "clarified" as well.

Although there are many players that contribute to the existence of the physical Internet, the legislation's use of the word "transmission" focuses responsibility and liability on only those parties who provide the technical transmitting capabilities. These parties include access, backbone, and online service providers who practically and legally lack the ability to control the choice of a majority of the content that traverses the Internet. In most cases, they have control over neither the creation nor the disposition of materials. True, these parties do transmit such

materials, but they are the innocent carriers of infringing actions initiated by other parties. The proposed legislation forces responsibility and liability for infringement solely and inappropriately upon the wrong parties. Nevertheless proponents of the legislation deny that the legislation attaches copyright infringement liability on online service providers.

While seeking legislative clarification for the meaning of "transmission" for their own benefit, content providers argue that online service providers do not require clarification of their potential liability because recent developments in case law provide them that necessary protection. Such reliance is misplaced. A single district court has ruled that an online service provider may not be subject to direct liability for infringing content initiated by a third party, but may be subject to contributory liability if it received notice of that infringement but failed to take action to deny further access to the infringing material. A single low level court decision lacks the clout alleged by content providers necessary to establish a controlling national precedent that dramatically attacks the nature of what is historically a strict liability statute. Moreover, unless the online service providers liability is clarified statutorily, the proposed legislation effectively reverses the impact of the recent *Netcom* case on which content providers base their arguments (*Religious Technology Center v. Netcom On-Line Communications Services, Inc.* 1995 U.S. Dist. Lexis 18173). Legislators must not overlook the reality that there is little relevant case law governing the new, evolving issue of copyright liability on the Internet. Unless all aspects of the law are clarified at the same time, such disputes will surely follow. Careful balancing of this matter at this critical time would avoid a likely onslaught of litigation.

The very architecture of the Internet that promises such broad distribution of information raises grave concerns for content providers. Content providers argue that online service providers are best situated to halt the dissemination of infringing work. They contend that online service providers should remove infringing work and deny infringing users connectivity to the Internet. Unfortunately, this argument is valid only from a theoretical perspective. Certainly, online service providers can readily identify the most obvious infringements. Many online service providers are content providers and copyright owners themselves, and while they wish to cooperate fully in protecting copyright material, they should not be assigned the gargantuan task of being "copyright cops" for all the millions of messages that traverse the Internet each day. In most cases, it is not

obvious that material is either copyrighted or infringing. The expanding volume of material on the Internet far exceeds the online service providers' physical capability to review and/or regulate any of the content that they do not themselves provide.

The proposed legislation asks online service providers to assume an inappropriate role. Judging whether a communication is infringing is a difficult and complex question that traditionally has been the responsibility of content owners to resolve -- and often they turn to the legal system to decide difficult cases. Yet, H.R. 2441 would assign this task to the online service providers who lack the resources, legal rights, or ability to achieve this result. Determining whether a work is infringing is difficult from the perspective of copyright law: Currently, works do not have to be registered to be protected. Authorship is not always obvious. The "substantially similar" standard is difficult to apply. Determining whether a work is infringing is difficult from a practical perspective as well: There are millions of messages carried over the Internet. Online service providers simply cannot be aware of every instance of infringing material. Moreover, in this evolving and merging communications environment, the implications of contract law, privacy, and common carrier obligations must be taken into account. For example, service providers may not presently be able to deny access to end users who commit a single instance of copyright infringement. Nor can they preview every message to judge its content for copyright infringement.

All parties involved in this matter agree that the development of the Internet as a meaningful source of useful information depends upon the effectiveness of copyright laws. Rather than encourage a cooperative effort between copyright owners and online service providers, however, content providers support a model that fails to place responsibility for verifying and deterring copyright infringement with the party that will benefit most from copyright law enforcement. Copyright owners benefit the most if their works are not freely distributed across the Internet -- not online service providers. Copyright owners receive compensation in successful infringement suits -- not online service providers. The proper calculus of benefit/responsibility requires that those who stand to gain the most financially must bear the burden of ensuring that copyright laws are enforced. This type of balance would recognize such practical considerations as the fact that it is the copyright owners who readily recognize their own copyrighted works --

not online service providers; and it is the copyright owners who are aware of licensing arrangements or other defenses that might be available to alleged infringers -- not online service providers.

To the extent that online service providers will have no Internet over which to provide services if the integrity of copyrighted material is not protected, they also have a role to play in seeking a solution to this complex dilemma. To this end, it is essential that all parties work together to fight copyright infringement. Online service providers can more readily respond to requests to remove material or offenders from the Internet only if they have clearly defined and non-fact-specific standards of notice on which they may rely. By adopting "actual notice" standards that require copyright owners to identify and verify cases of infringement, online service providers can more readily assist copyright owners in protecting their exclusive rights and thereby ensure the integrity of all Internet communications. So long as online service providers are not tasked with making legal judgements about infringement (and face other liability if they do so incorrectly), they will be very willing to help copyright owners fight the Internet copyright problem.

H.R. 2441 currently reflects an unbalanced solution to the dilemma of how best to ensure that copyright laws are respected in the new architecture of the Internet. The complexity of this matter requires a cooperative effort among all parties that has not yet been achieved. To make the Internet a place where users can find valuable information and copyright owners' specific rights are protected, we ask that the record in this matter remain open, that more hearings be held, the bill be amended to correct the liability issue, and that all efforts be made to guarantee that a balanced and practical solution is found.



TESTIMONY OF

THE PUBLIC BROADCASTING SERVICE

AND

NATIONAL PUBLIC RADIO

ON

H.R. 2441,

"THE NII COPYRIGHT PROTECTION ACT OF 1995"

SUBMITTED TO THE HOUSE SUBCOMMITTEE ON

COURTS AND INTELLECTUALPROPERTY

FEBRUARY 15, 1996

I. Introduction.

The Public Broadcasting Service (PBS) and National Public Radio (NPR) share the Congress' interest in focusing national attention on the information infrastructure. Public broadcasting is also focused on new and emerging communications technologies and devoting considerable efforts to developing applications of those technologies that serve the public interest and educational needs of the country.

PBS and NPR have reviewed H.R. 2441 carefully to identify issues of concern to public broadcasting. We have two sets of concerns with this legislation. First, certain of the bill's provisions need to be refined to ensure that existing preferences afforded non-commercial entities under the Copyright Act are not inadvertently compromised. Second, PBS and NPR believe it would serve the public interest to expand the treatment already accorded non-commercial entities under the Act to facilitate the use of new technologies for non-commercial educational purposes.

II. Possible Consequences of H.R. 2441 to Non-Commercial Educational Entities

Over the years, Congress has enacted several pieces of legislation that demonstrate its longstanding commitment toward ensuring that public broadcasting's services are universally accessible to the American public. With regard to copyright law, Congress has adopted certain special provisions to foster non-commercial educational programming. It is critical that H.R. 2441 be revised to avoid any unintended or undesirable erosion of these preferences and to maintain the balance of current law between the rights of copyright owners and the public's access to certain programming.

Among its principal provisions for adapting the Copyright Act to the NII, H.R. 2441 proposes that Section 106 of the Copyright Act be amended to provide that certain transmissions of copyrighted works to the public fall within the exclusive distribution right of the copyright owner, and that the

definition of "transmit" contained in Section 101 include distribution of a reproduction. But because the terms "transmit" and "transmission" are terms of art used throughout the Copyright Act, the use and redefinition of those terms could cloud the interpretation of a number of provisions that limit and refine copyright law as it applies to public broadcasting.

Some form of the word "transmit" is used in the Copyright Act, among other places, to define the scope of Section 110(2) (creating a right to perform a nondramatic musical work "in the course of a transmission" for certain educational purposes); Section 110(8) (creating a right to perform nondramatic literary work "in the course of a transmission" for blind or deaf persons); Section 112 (creating a right of a "transmitting organization" to make ephemeral copies of a transmission); Section 114(b) (creating a right of public broadcasting entities to "transmit" sound recordings); and Section 118(d) (creating a compulsory license for public broadcasting entities to perform nondramatic musical works "in the course of a transmission"). In using the term "transmit" in these provisions, the law relies on the current definition of that term contained in Section 101.

By broadening the term "transmit," and using that term to describe a new type of distribution right, H.R. 2441 could, without further clarification, create new liability for traditional broadcast uses of copyrighted works. Under present law, for example, a public broadcasting entity is entitled to transmit, over the air, a performance of copyrighted non-dramatic music, so long as it compensates the owner of the work through the Section 118 compulsory license. If H.R. 2441 were adopted without modification, however, that broadcast transmission might constitute not only a performance of the music permitted by Section 118 but also a distribution, which would present new copyright liability issues for the broadcaster. (This might occur when the means of transmitting the broadcast performance permitted the making of a fixed copy of the over-the-air broadcast at a place where the signal was received.) Clearly, H.R. 2441 should not affect radio and television broadcasters working in their traditional medium.

While H.R. 2441's proposed amendments to the Copyright Act are apparently intended to cover a prototypical NII transaction in which a copyrighted work is distributed or performed by electronic rather than physical means, H.R. 2441 could create unintended confusion and perhaps new liabilities for public broadcasters. The bill should be modified to protect against such unintended consequences and should expressly state that the proposed changes are not intended to limit in any way the scope of protection currently afforded non-commercial broadcasters.

III. Expansion of Existing Preferences to Non-Broadcast Media

At a minimum, H.R. 2441 should not undermine existing protections for traditional uses of copyrighted works, but H.R. 2441 should also affirmatively encourage public broadcast uses of the NII and other non-broadcast media.

Public broadcasters have historically played an essential role in American society by producing non-commercial news, public affairs, educational, and cultural programming. The transition from traditional electronic media to a "national information infrastructure" will not eliminate the programming needs currently served by public broadcasters. Unless the provisions that currently benefit public broadcasting are extended to similar uses of copyrighted works in other media, members of the public using these new media will be deprived of many non-commercial applications of these new technologies. Likewise, public broadcasters will lack the incentives and tools essential to foster new, non-commercial applications of the NII if their broadcast programs cannot be economically adapted to the NII.

PBS has, for example, developed an Internet-based service called PBS ONLINE®. With nearly 6,000 pages of material related to PBS programs and services – and hundreds of special educational pages for teachers and parents – PBS ONLINE® is attracting between one and two million

"hits" each week. Two weeks ago, Jim Lehrer's NewsHour joined PBS ONLINE® with a 24-hour-a-day news service, and publications like INTERACTIVE WEEKLY are listing PBS as one of the top sites on the Internet.

In conjunction with the National Geographic Society, NPR presents "Radio Expeditions." Developed for adults and children, this program has a multi-page Web site that incorporates interactive audio links from the NPR broadcast and colorful National Geographic maps and photographs to create an exciting online component to science broadcasts. With the click of a mouse, computer users navigate online expeditions and follow the trail of NPR and National Geographic producers, reporters, researchers and hosts to examine various subjects. The most recent topic featured is biodiversity – undersea and on land – and examines the complexity and interconnectedness of life on Earth. The "Oceans of Life" program examines the world's waterways and their ecosystems using the Internet with audio. Using NPR's programming and Homepage, together with National Geographic resources, each program is produced in stereo and distributed throughout the world. This March, NPR will launch a fourth collaboration with National Geographic, called "Life on the Brink." This special examines threats to Earth's variety of life and implications of wildlife and habitat demise for humankind.

NPR has developed and is currently producing educational initiatives for use on the Internet. The NPR Science Friday Kids Connection is an on-line project involving middle school students, educators and scientists. Together with participating scientists, schools create individual science projects using information from "Talk of the Nation Science Friday", NPR's weekly science program. Using sounds, graphics and photographs displayed on the Science Friday Kids Connection Home Page on the Internet, students analyze this information and create a school Homepage that links their projects to the outside world and to other participating schools across the nation. The Science Friday Kids Connection partnership includes about 10 NPR member stations and schools in their areas, with plans for expansion in the near future.

But the potential for public broadcasting to create more educational programming over the Internet is severely restricted by the administrative and financial costs associated with clearing copyrights. For these reasons we hope the Subcommittee will consider adopting additional exemptions or revising the legislation as further described in this testimony to facilitate non-commercial educational programming over the Internet.

Many policy makers also do not realize that in addition to its respected and widely acclaimed broadcast programs, teachers and students rely on public broadcasting in classrooms across the country every day to deliver high quality educational video. For example:

- Last year, PBS beamed distance learning telecourses by satellite to two-thirds of the nation's college campuses, where 370,000 degree candidates enrolled in courses provided by PBS.
- In mid-1994, PBS began providing a service to community colleges called "Going The Distance." Through that program, students can take the Associate of Arts degree totally through distance learning courses, using only an online computer link to reach the campus and take exams. PBS started with 40 campuses; now more than 100 campuses are enrolled.
- Two years ago PBS launched a video training services for middle-school math teachers called PBS MATHLINE. More than 2000 teachers are now enrolled in MATHLINE -- and next year, PBS hopes to spread the concept farther across the curriculum with another service called SCIENCELINE.

In addition, public television producers are actively engaged in "reversioning" many of their finest educational program to formats suitable for classroom settings consistent with teachers' lesson plans. These reversioned programs intended for classroom use are sometimes best delivered to schools directly by satellite, by video cassette, by computer or by CD-ROM. The appropriate media depends on the school being served and the school's fiscal and technical resources. In many

cases, however, public television producers are forced to engage in wasteful and unnecessary editing because of an inability to obtain affordable rates for non-broadcast uses. For example, if thematic music was used in the broadcast program and that program is later provided to schools on videocassette, the music track may need to be stripped from the program or replaced.

This legislation provides Congress with an historic opportunity to consider whether there will be a place for non-commercial educational programming on the NII. Accordingly, PBS and NPR propose the following:

A. Expand the §118 Compulsory License.

The public broadcast compulsory license—17 USC §118—provides a mechanism by which public broadcast stations may use published non-dramatic musical works (as well as published pictorial, graphic, and sculptural works) without having to negotiate individually licenses with the copyright holders of such works. Historically, public broadcasting has negotiated blanket licenses with the organizations that represent the underlying rights holders and have paid the agreed upon copyright royalties (several million dollars per year). The purpose of the provision was to assure the availability of these repertoires to public broadcasters' viewers and listeners at affordable rates and to avoid contentious and expensive license negotiations.

We propose that H.R. 2441 be amended to extend the §118 compulsory license for uses of music and certain other works in other media. It is of vital importance to such new services as PBS ONLINE and other educational initiatives that rights to use these materials be maintained using today's technologies (e.g. computers, satellites, CD-ROM's etc.).

Section 118 should also be amended to permit PBS and producers to grant schools not less than "one-year off-air re-record rights." For many years, teachers, schools and educational associations have been clamoring for PBS to facilitate the use of its programs in the classroom. Under the

current 10-day "fair use" guidelines ratified by Congress in 1981, PBS programs may be videotaped for classroom use only for a brief period of time, a period generally regarded as too short to critically evaluate, plan for and use public television programs as part of a curriculum. Public television's efforts to establish one-year off-air re-record rights as a standard, while quite successful, have resulted in complex and confusing discrepancies that impede the use of federally-subsidized and educationally valuable programming.

In addition, the Copyright Act definition of "public broadcasting entity" should be conformed to the definition contained in the Communications Act, so that it specifically includes entities such as PBS and NPR.

B. The Performance Right in Sound Recordings Should Exempt Non-Commercial Entities.

Section 114(b) of the Copyright Act exempts public broadcasting stations from the existing copyrights accorded sound recordings. The Administration has proposed broadening the newly enacted Digital Performance Right in Sound Recording Act of 1995 (the "1995 Act"). This is a step in the wrong direction.

Granting an unrestricted performance right in sound recordings will further strain the resources of public broadcasters. By effectively eliminating the public domain status of many works, music clearance costs would increase dramatically. The distribution of non-commercial educational programming through on-line services and other means will become even more costly and, therefore, less likely, under the 1995 Act, even before broadening such rights further.

Costs and uncertainties associated with clearing various music rights are already impeding the usefulness of PBS ONLINE®. When, for example, PBS member station WGBH-Boston produced a Web piece for its recent program on the history of rock and roll music, it elected not to include any music at all rather than incur extra costs or liabilities. The Web site thus

failed to achieve its potential and the public was denied the full benefit of this alternative medium.

In recognition of the limited resources of public broadcasting entities and the public and educational services they perform, any performance right in sound recordings should exclude public broadcasters. By not extending the existing exemption, the 1995 Act and H.R. 2441 undermine the unique and important status of non-commercial programmers under the copyright laws. (Extending the existing exemption would merely require adding a reference to the proposed new right ("(6)") to the existing references ("2, and 3") in Section 114(b)).

If the existing blanket exemption to non-broadcast uses cannot be extended, there are more narrow amendments that could protect non-commercial entities without any material adverse affect on commercial interests. An "incidental use" exception for non-commercial entities could cover the performance of a small portion of a sound recording as part of an educational and cultural transmission. For example, so long as public television and public radio use no more than 60-seconds of a musical selection as part of an on-line service, they could be exempted from the substantial costs and uncertainties associated with clearing sound recording performance rights.

C. Extend the Music Exemption.

The exemption contained in §114 of the Copyright Act enables public broadcasting stations to include sound recordings in educational television and radio programs. Under the existing statute, however, copies of the program may not be commercially distributed by or through the station to the general public.

To increase the revenue generating opportunities associated with public broadcasting programs, §114 could be amended to eliminate the bar to commercial distribution (so that a station might commercially distribute a program that includes sound recordings) so long as any revenue generated by such activity is used for the not-for-profit purpose of the

entity. This change would be consistent with fostering the non-commercial purposes of public broadcasting.

Finally, Section 114 should also be modified to track the Communications Act definition of "public broadcasting entity," which includes entities such as NPR and PBS.

D. Re-Open Public Broadcasting's Educationally Valuable Archives.

Public television's experience is that thousands of hours of educationally valuable programming, in earlier years cleared only for broadcast use, lie dormant because of the administrative and financial burden of clearing the underlying rights for other uses. Adding to the existing compulsory licenses already afforded to public television could address this market failure, giving the public, through public television, much needed access to copyrighted works.

PBS proposes consideration of a new provision in the Copyright Act (to be added by amending H.R. 2441) that would grant a compulsory license to public television entities to works first broadcast on public television but not being exploited in any audiovisual form after a period of years sufficient to evidence "market failure." After this period, public television would be granted a compulsory license, like that set forth in §118, to use the work. The compulsory license would be granted only upon expiration of a five or ten year period, and could be limited to five year terms so that if a marketplace for the work should develop the copyright owner would again be afforded exclusive rights. In this way, underutilized but socially valuable educational material could be made available, and rights holders could be fairly compensated for works for which they might not otherwise be compensated at all.

NPR endorses the establishment of a mechanism to facilitate the re-use of programming first broadcast by non-commercial educational radio stations. Because of differences between public television and public radio in the manner in which programming is produced, acquired and

distributed, it may be necessary to create different statutory mechanisms for public television and public radio.

IV. Conclusion

Public broadcasters recognize that the interests of copyright owners must be assured if the "information superhighway" is to develop. We also believe, however, that achieving the Constitutional objective of "promot[ing] the Progress of Science and the useful Arts" also depends on preserving public access to copyrighted works, particularly for educational purposes. For that reason, we recommend extending existing copyright preferences to the NII, and other non-broadcast media. Prudent limitations on the exclusive rights of copyright holders are vital to public broadcasting and to other educational uses of new technologies, and the extension of such limitations to the NII will be necessary if it is to fulfill its promise to society.



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February 15, 1996

The Honorable Carlos Moorhead
Chairman, Subcommittee on Courts and Intellectual Property
House Judiciary Committee
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Moorhead:

The National Association of Broadcasters (NAB), a nonprofit incorporated association representing America's radio and television stations and broadcast networks, submits these comments on H.R. 2441, the "NII Copyright Protection Act of 1995." While broadcasters are sensitive to the digital, computer and technology related problems sought to be addressed by this legislation, NAB is concerned that several provisions, as drafted, could unnecessarily, and perhaps unintentionally, disrupt copyright practices that have governed the broadcast industry for many decades and, with respect to the library exemption, could create the risk of abusive copying.

First, the ambiguity created by Section 2's amendments to the distribution right, the definitions of transmission and publication, and the right to prohibit importation could expose broadcasters to liability for infringing the distribution and importation rights through broadcast transmission. While it is our understanding that the amendments contained in Section 2 were not intended to cover broadcast transmissions, (and, indeed, the White Paper's example of a distribution by transmission involved a computer program transmitted from one computer to ten others), the language should be revised to make this intent clear.

Second, the provisions of Section 3 allowing libraries, for the first time, to reproduce and maintain copies of works in digital form could, without further protections or limitations, create the possibility of facilitating massive on-line copying of broadcasters' works.

Third, the provisions concerning the circumvention of copyright protection systems in Section 4 needs to be modified to clarify that the prohibition against circumventing such systems would not apply to a party who defeated a copyright protection device for the purpose of using copyrighted material in an otherwise lawful manner.

Fourth, the copyright management information provisions of Section 4 create potential dilemmas for broadcasters and others using licensed copies of works, in that when CMI information contained in their copies becomes out of date, they are prohibited both from broadcasting such "false" information and from altering it.

NAB believes none of these problems is insurmountable, and most can be remedied by minor clarifications to the proposed language. Left unattended, the current language could create major ambiguities and uncertainties in long existing licensing practices.

Concerns Over Expanding the Distribution and Importation Rights

Historically it has been clear that the rights of distribution and importation have involved the sale, rental, or other transfer of ownership or possession of physical copies of copyrighted works -- activities in which broadcasters clearly do not engage. It has been equally clear that broadcast transmission is a public performance, and that such performances or communications are achieved by means of a transmission, for which broadcasters must obtain appropriate licenses. The concern of broadcasters is that these historically clear lines of distinction -- between distribution and importation, in which broadcasters do not engage and for which they need not acquire rights, and public performances by transmission, for which they do need to acquire rights -- appears to have blurred under the proposed legislation.

In its attempt to address the problems posed by the rapid development of digital communications over the NII and GII, the legislation expands the definition of "transmit" to include distribution of reproductions. Under the bill, the definition of a transmission would embody two concepts: a communication of a performance or display **and** a distribution of a reproduction. Because the right of distribution would now reference transmissions, both embodiments of the term transmission would apply, and at least make possible the argument that broadcast transmissions could constitute a distribution or importation. In this regard, we share the concerns raised by the Copyright Office regarding the potential harmful effect Section 2 may have on settled law:

Many of the Working Group's proposals concern clarification of the concept of transmission as it relates to works distributed over the information infrastructure. It is important to remember that transmission technology has been transporting communications for over a hundred years. The first common transmissions probably originated with the telegraph, and became even more commonplace with the introduction of telephones. Broadcasting was probably the first medium to exploit intellectual property through the use of transmissions.

The suggested changes address transmissions as they relate to distribution of intellectual property over the information infrastructure. Since transmission is not a new technology, it is important to determine whether the suggested amendments might alter settled law in other areas of copyright jurisprudence. . . .

In considering the relationship of the distribution right to copies or phonorecords produced through transmissions, it would appear important to involve both owners who distribute over the information infrastructure, and owners who distribute through broadcast or cable transmissions. In any event, all the ramifications to the suggested changes should be considered before modifications are enacted into law. (Comments of

the U.S. Copyright Office on the Preliminary Draft of the Working Group on Intellectual Property, 1984, pp. 8, 12).

Radio and television broadcasts are intended to be public performances that are heard and/or viewed by large audiences. Such broadcasts are inherently transient. Immediately after an image or sound is enjoyed, it disappears. The Copyright Office has observed, "if the copy [of a work] is merely transient -- appearing only when the work is performed or displayed and there is not transfer of ownership, the distribution right should not be involved." (Comments, p. 10). We agree.

Broadcast transmissions are clearly transitory, and the Copyright Office's analysis is directly applicable. There is no changing hands of a copy of the copyrighted work on the part of a broadcaster. They do not transmit their programming with the intent of providing a copy to recipients.

Technology has now made it possible for broadcast stations to transmit their programs over the Internet. Such transmissions supplement broadcasters' over-the-air transmissions, are similarly intended to be performances, and are also not distributions.

The White Paper, in separate discussions on pages 31 and 215, appears to acknowledge that performances or displays on television are not publications, and therefore would likely be found to be outside the scope of the copyright owner's distribution right. However, by amending Section 106 and the definition of "publication," both of which would recognize transmission as a means of distribution, the proposed legislation could be read to bring broadcast transmissions, for the first time, within the scope of the copyright owner's distribution right.

In PL 104-39, the "Digital Performance Right in Sound Recordings Act of 1995," Congress acknowledged the unique nature of broadcast transmissions by specifically exempting such transmissions from the coverage of the digital public performance right in sound recordings. Congress made clear that the intent of that legislation was to "provide copyright holders . . . with the ability to control the distribution of their product by digital transmissions . . . without imposing new and unreasonable burdens on radio and television broadcasters, which often promote, and appear to pose no threat to, the distribution of sound recordings." (House Rept. 104-274, p. 14).

A similar unequivocal expression that this legislation is not intended to reach and affect broadcast transmissions, either radio or television, is needed, as there is no threat to the distribution right of copyright owners. If the ambiguity in Section 2 is not clarified, it could negate the consensus policy adopted in the Digital Performance Right legislation.

Library Exemption

NAB shares the concerns of those who testified in the hearings on this legislation regarding the need to clarify that expanding the library exemption to permit the creation of digital copies of works must be limited to using such digital copies only for preservation and archival purposes.

Many libraries, pursuant to Section 108 of the Copyright Act, maintain collections of audio and audio/visual works produced by broadcasters that are properly used for research and scholarship. The potential difficulty with allowing libraries to make digitized copies of these works without limitation is the possibility of such copies, intentionally or inadvertently, being made available over an electronic network to multiple users and multiple sites that could result in massive downloading of works. Such hemorrhaging of works could threaten the copyright interests of many broadcasting organizations that are finding new and exciting ways to exploit their archival materials through CD-ROMs, electronic publishing and on-line.

To prevent such a result, revisions are needed to clarify that the proposed authorization to permit libraries to make digital copies applies only to sections 108 (b) and (c). It is also critical that the library exemption provision of the act include the following limitations:

(i) digitized materials must not be available on any library database that is accessible to the public other than at the site of the library or archive. If a database can be accessed from a remote location, any information or materials available on that database must be encrypted to prevent the unauthorized reproduction, distribution and/or performance of such materials or information; and

(ii) copyright and other proprietary notices and warnings in the original materials must be maintained in digitized versions. If the recommended copyright management provisions are enacted, these provisions should expressly be incorporated into the library exemption provision.

Clarification Needed Concerning the Circumvention of Copyright Protection Systems

Section 4 of the proposed legislation appears to prohibit the manufacture or distribution of any device or the offering or performance of any service, the primary purpose or effect of which is to circumvent any mechanism or system developed to prevent or inhibit copyright infringement "without authority of the copyright owner or the law."

The language of this provision is ambiguous in that it is unclear whether the disarming of a copyright protection system without authority of the copyright owner or the law would, itself, be prohibited, even if it was done for the purpose of engaging in an activity that was otherwise authorized by law.

For example, the "authority of the law" permits a broadcaster to make an ephemeral copy or

phonorecord of transmission programs, and to publicly perform works under fair use, without the copyright owner's consent. Under the proposed Section 4, would a broadcaster nevertheless be prohibited from disarming a copyright protection system for the purpose of engaging in these lawful activities because there is no explicit "authority under law" to disarm the device? Section 4 needs clarification that no independent authority under law is needed to disarm a copyright protection system under these circumstances.

Concerns with CMI Provision

Section 4 also creates a new Section 1202, which would prohibit knowingly providing false Copyright Management Information (CMI) and knowingly removing or altering CMI without authorization. The intent of the amendment is to provide information in an "electronic envelope" regarding a work's authorship, copyright ownership, date of creation or last modification, and terms and conditions for authorized copies. The problem that arises concerns the reality that the copyright ownership of "works" often changes over time, but the CMI contained in "copies" of such works will remain unchanged — indeed, Section 1202 forbids alteration.

Broadcasters may find themselves in the following situation: C, an owner of a registered work, authorizes a broadcaster to air copies of a work over a certain number of years. Later, C assigns the ownership to C2. If the broadcaster has no knowledge of the assignment and continues airing its licensed copy, does it violate Section 1201 by providing false CMI? Even assuming the broadcaster would not be liable, because it does not "knowingly" provide false CMI, the broadcaster could be enjoined by C2 from airing the material that bears false CMI. If the broadcaster does have knowledge of the assignment and alters the CMI to reflect it, does the broadcaster nevertheless violate the prohibition against altering CMI? Clearly, this amendment should not empower new copyright owners with an opportunity to exact more favorable licensing terms.

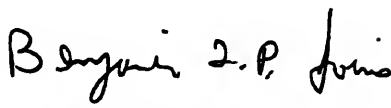
Conclusion

As content providers and copyright owners, broadcasters support the goal of the legislation to revise the copyright law in light of recent technological advances. While we believe that the legislation is not intended to cover broadcast transmissions, it is important to clarify this in the legislation to avoid disruption of current copyright policy. We welcome the opportunity to work with the Subcommittee to clarify the ambiguities created by Section 2, as well as to address the other concerns we have raised.



Henry L. Baumann
Executive Vice President and General Counsel

Sincerely,



Benjamin F.P. Ivins
Assistant General Counsel

RECORDING FOR THE BLIND & DYSLEXIC
20 ROSZEL ROAD, PRINCETON, NEW JERSEY

STATEMENT

TO THE SUBCOMMITTEE ON COURTS AND INTELLECTUAL PROPERTY
COMMITTEE ON THE JUDICIARY
U.S. HOUSE OF REPRESENTATIVES

ON THE
"NII COPYRIGHT PROTECTION ACT OF 1995"
H.R. 2441

8 FEBRUARY 1996

Background on Recording for the Blind & Dyslexic (RFB&D):

RFB&D -- a private, nonprofit organization -- serves as the "Nation's Educational Library" for people who cannot read standard print because of a disability. Applying the latest technology, RFB&D's work focuses on reproducing and distributing already published materials in accessible audio and digital text versions to students and professionals who are blind, severely dyslexic or otherwise physically disabled. This year alone, RFB&D -- the largest library of its kind in the world -- will lend over 225,000 copies of texts to nearly 40,000 individuals with disabilities. Needless to say, RFB&D works closely with the publishing, education and disabilities communities.

Technology and Information Access to People with Disabilities:

The advent of new information technologies obviously offers all individuals remarkable opportunities for access to an increased volume and entirely new types of information. At the same time, the introduction and consideration of new information systems affords our society the essential opportunity to respond to the needs of individuals with disabilities. In particular, we, as a society, are required -- ethically, philosophically and legally -- to consider and provide for equally efficient and effective modes of access to information for the hundreds of thousands of American students, professionals and members of the general public who cannot read standard print.

Clearly, we need an environment in which the manufacturers and owners of information are comfortable with the protection of intellectual property. The greater the assurances of protection, the freer the flow of information and the greater the benefit to

all end users. However, as systems are developed to protect copyright holders' material, we cannot afford to add further layers of inaccessibility to that information.

Nor can we allow ourselves to miss the excellent opportunities offered at this time to improve the availability and flow of accessible information to people with disabilities. As progress is made in developing guidelines for the use of copyrighted works, we must assure that the requirements of efficient and effective accessible format production and distribution are equally provided for.

Support for H.R. 2441, "NII Copyright Protection Act of 1995":

RFB&D is very pleased to support H.R. 2441, the "NII Copyright Protection Act of 1995." As a leading participant in the consideration of disability and copyright issues involved in the NII, we especially endorse the modifications to Section 108A, "Reproduction for Blind or Other Persons with Disabilities," proposed by the Association of American Publishers and the National Federation of the Blind. This section, with the proposed modifications (attached), has received strong support from the publishing, education, and disability communities.

In short, what we are suggesting is really very simple -- accessible versions of information to people with disabilities at the same time, with the same ease, and on the same terms of availability as is accorded to the general population.

RFB&D commends the Chairman and the committee for their work on this critical issue. We stand ready to assist in any way possible.

AMENDMENT PROPOSED TO H.R. 2441/S. 1284

Section 108A. Limitations on exclusive rights: Reproduction for blind or other persons with disabilities

(A) "Notwithstanding the provisions of sections 106 and 710, it is not an infringement of copyright for an authorized entity as defined in this section to reproduce or to distribute copies or phono records of a previously published, nondramatic literary work if such copies or phono records are reproduced or distributed in specialized formats exclusively for use by blind or other persons with disabilities as defined in this section.

(B) As used in this section, the term --

(1) "authorized entity" means a nonprofit organization or a governmental agency whose primary mission is to provide specialized services relating to training, education, or adaptive reading or information access needs of blind or other persons with disabilities;

(2) "specialized formats" means Braille, audio, or digital text which is exclusively for use by blind or other persons with disabilities; and

(3) "blind or other persons with disabilities" means individuals who are eligible or may qualify in accordance with section 135a of Title 2, United States Code, to receive books and other publications produced in specialized formats.

(C) Copies or phono records made under this section --

(1) Shall not be reproduced or distributed in a format other than a specialized format exclusively for use by blind or other persons with disabilities, and any copies or phono records made under this section shall bear a notice that any further reproduction or distribution in a format other than a specialized format is an infringement; and

(2) shall include a copyright notice identifying the copyright owner and the date of the original publication.

(D) The provisions of this section shall not apply to standardized, secure, or norm-referenced tests and related testing material.

ACIS

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ACIS TESTIMONY ON H.R. 2441

ACIS members include some of the leading providers of Internet related software, hardware and services, and the simple truth is that we have no concrete idea what the information infrastructure will look like in five or ten years, let alone how to maximize its commercial potential. To be sure, each ACIS company has its own vision, but that vision changes every few months, and each company has a different vision. Some of our members have been in existence since the dawn of the computer age — indeed, some have been in existence since the dawn of the mechanical cash register — yet none of us remember a period of change as rapid as what we have experienced over the past two years with the explosive growth of the Internet generally and the World Wide Web in particular. Not surprisingly, the uncharted nature of the NII was the one point upon which all hearing witnesses agreed.

Given this uncertainty, we believe that there is no way to know whether H.R. 2441 will increase the commercial potential of the National Information Infrastructure. In fact, we are concerned that H.R. 2441, as currently drafted, is just as likely to have to opposite result.

While individual members of ACIS have a variety of concerns with H.R. 2441, ACIS, as an organization dedicated to promoting intellectual property laws favorable to

ACIS

software interoperability, is particularly troubled by proposed Section 1201. The thrust of the proposed Section 1201 is to prohibit the importation, manufacture and distribution of devices that circumvent a system or process that prevents illegal copying of protected works. While we support in principle the idea of prohibiting the circumvention of devices that prevent piracy, any such provision must be carefully drafted so as not to prevent legitimate activities. We believe that the current formulation of Section 1201 would seriously impede software innovation and interoperability. The balance of this testimony demonstrates that Section 1201 as drafted would have a harmful impact on software innovation; that the analogies cited by the White Paper are inapposite; that Section 1201 is rife with ambiguities; and that more carefully drafted provisions have already been enacted in the European Union. We also believe that Section 1202 raises interoperability concerns, and that the issue of random access memory (RAM) copies, which is being addressed separately, needs to be considered in a broader context.

I. Proposed Section 1201 Endangers Software Innovation and Interoperability

Not all copies are infringing copies. Courts in three circuits, for example, have excused the copying incidental to software reverse engineering for purposes of achieving interoperability. If a firm developed a technology that prevented the making of these copies, a device that circumvented that technology might run afoul of the new Section 1201. The outlawing of such devices would inhibit lawful reverse engineering which in

ACIS

turn would retard the interoperability of the software and hardware components of the NII. In the absence of interoperability, competition and innovation would stagnate.

ACIS raised this concern with respect to the Intellectual Property Rights Working Group's July, 1994 Green Paper, which recommended the same provision. *See attached.* The Working Group's White Paper responded by asserting that Section 1201 would not prohibit an anticopy circumvention device "primarily intended and used for legal purposes." This, however, is an inadequate answer, as ACIS explained in its Green Paper comments. Although a device that circumvents a reverse engineering "lock" clearly would have a lawful use, like most devices it could also have unlawful uses. Thus, even though the device's developer would intend for it to be used lawfully, he would have no way of knowing in advance whether it would in fact be used *primarily* for lawful or unlawful purposes. With the threat of Section 1201 liability looming overhead, the developer may opt not to produce the device at all.

The White Paper conceded the validity of this concern by proposing an "innocent violator" provision. This provision, unfortunately, does not provide adequate protection for legitimate developers. Section 1203(c)(5) would allow a court in its discretion to reduce the award of damages if the violator proves that it "was not aware and had no reason to believe that its acts constituted a violation." Although the meaning of the "no reason to believe" standard is obscure, it would appear that few developers would be able to demonstrate that they had "no reason to believe" that their circumvention device might

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ultimately be used primarily for unlawful purposes. Moreover, the provision provides the innocent violator with relief from damages, but not from injunctions.

The White Paper also argues that the copyright law imposes no obligation on an author to make his work available to the public. Thus, a museum can require an entry fee and prohibit the taking of photographs of a displayed painting. The White Paper neglects to mention, however, that the museum does not own the copyright in the painting, just the copy. The museum's ability to charge an entry fee and prohibit photography is not a function of federal copyright law, but state property and contract law. The White Paper provides no explanation why the Copyright Act should be amended to improve enforcement of rights under state law.

Section 1201 as currently drafted has another flaw: it would have a disproportionate impact on small software firms. A large firm interested in circumventing anticopy devices for lawful purposes might still be able to obtain the necessary technology, either by developing it in-house (and using it only for lawful purposes) or by purchasing it from a third party whom it promises to indemnify against Section 1201 claims. A small firm, conversely, will not have the resources to develop the technology internally, and the third party will refuse to supply it with the technology because the small firm's indemnification agreement will have no value.

At this juncture, it is important to stress that although ACIS is primarily concerned with the negative impact of this provision on software reverse engineering and

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thus on interoperability, Section 1201 could harm other users as well. It could, for example, impede the development and distribution of devices necessary for the making of fair use copies of passages from copy-protected memoirs, or the reproduction of copy-protected novels whose copyright term has expired. Further, Section 1201 could delay the distribution of a host of products as their developers conduct extensive testing to ascertain whether the products inadvertently circumvent anticopy devices.

The great irony of Section 1201 is that it would impose higher standards on anticopy circumvention devices than on copying devices themselves. Under the *Betamax* decision, a copying device does not contribute to copyright infringement if it has a substantial non-infringing use. In contrast, under Section 1201 an anticopy circumvention device escapes liability only if it meets the stricter “primary purpose or effect” test. If anything, anticopy circumvention devices should be held to a *lower* standard than copying devices. It is the copying device, after all, that is causing the real injury, not the anticopy circumvention device.

II. The Analogies Cited by the White Paper in Support of the Proposed Section are Inapposite

Contrary to the White Paper’s suggestion, the provision contained in the Audio Home Recording Act that prevents the importation, manufacture or distribution of devices that circumvent a Serial Copy Management System (SCMS) provides no support for the proposed Section 1201. In digital audio recording systems that employ a SCMS, the scheme allows the end-user to make at least one digital (and unlimited analog) copies

ACIS

of a digital original. Thus, the SCMS provides an adequate accommodation to the fair use of copyrighted works and to the making of copies for other legal purposes. The proposed Section 1201 provides no such accommodation, however, because a copyright holder may implement a scheme whereby no copies of the work, lawful or unlawful, may be made.

Likewise, Section 605 of the Communications Act is not analogous to most situations that would be covered by the proposed Section 1201. Section 605 prohibits devices that allow the unauthorized decryption of satellite cable programming. Such decryption is fundamentally different from making copies of protected works because such unauthorized decryption involves gaining access to a signal that the recipient has no legal entitlement to have. On the other hand, the lawful owner of a copy of a work not only has the right to view the work but in some instances may make copies of the work without infringing the copyright. A broad prohibition on decryption devices might therefore be tolerable in a licensed satellite cable programming context, but a prohibition similar to the proposed Section 1201 is not appropriate in the broader copyright context.

To the extent Section 605 is a precedent, it demonstrates the deficiencies of Section 1201. Section 605 targets only persons “knowing or having reason to know” that the device they manufacture “is primarily of assistance in . . . unauthorized decryption.” Section 1201 lacks this scienter requirement.

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III. Proposed Section 1201 is Rife With Ambiguities

As noted above, the White Paper states that so long as the device in question is primarily intended and used for legal purposes, such as fair use, then such a device would not violate the provision because it would fall within the “authorized by law” exemption. The actual language of the provision, however, does not readily support this reading. The so-called “authorized by law” exemption applies by its terms to the act of disabling or circumventing the anticopy technology. However, the fair use doctrine and any other provision of the Copyright Act that “authorizes” copying does not apply to the act of disablement or circumvention; rather, it applies to the copying of the ultimately targeted work. The anticopy technology itself may or may not be subject to copyright protection, and the means of circumventing it may or may not be a fair use; yet this question remains independent of whether the copying of the ultimately targeted work is a fair use.

The “primary purpose” test also is ambiguous. As Section 1201 is drafted, it is unclear whose purpose should be considered. Similarly, the term “primary effect” is vague and difficult to apply. If a device is used for one unlawful purpose 40% of the time, and for two different lawful purposes 35% and 25% of the time respectively, is the “primary effect” lawful or unlawful? And what if a device is used unlawfully only 10% of the time, but the value of the copies made by this 10% exceeds the value of the lawfully made copies? Further, demonstrating the “primary effect” of a product will require expensive market studies and expert testimony. In short, Section 1201 as drafted invites complex litigation.

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IV. The EU Software Directive Provides a Better Model

Legitimate concerns for the protection of copyrighted works in a digital context can be addressed by a narrower, carefully crafted regulation of devices designed to defeat anticopying systems that focuses on the uses to which those devices are put rather than the devices themselves. An example of such a provision is Article 7 of the May 14, 1991 European Council Directive on the Legal Protection of Software, which has been enacted in national laws throughout the European Union and the emerging democracies of Eastern Europe.

The EU provision provides clearer guidelines for legitimate copying than the proposed Section 1201 while not sacrificing the important goal of prohibiting piracy, by eschewing the “primary purpose or effect” test in favor of a “sole intended purpose” test. Accordingly, the EU provision minimizes the risk of chilling the development of legitimate and desirable products necessary to interoperability. Further, given that harmonization of intellectual property regimes will facilitate the development of the Global Information Infrastructure, it makes sense to refer to the existing statutes of our trading partners when considering changes to domestic law. ACIS therefore suggests that Congress carefully examine the EU’s approach as it considers this issue.

V. Other Interoperability Concerns

Section 1202, which prohibits the distribution of products with false copyright management information (CMI), seems benign but it could be interpreted in a manner that impedes interoperability. Some hardware or software platforms permit programs to

ACIS

run on them only if the programs identify themselves as products developed by the creator of the hardware or software platform. If another software firm wants to market a product that can run on that platform, it must send a “false” designation of origin. At least two cases have correctly found that the sending of such a false designation violates neither the copyright nor trademark laws, and we believe that the false designation should not be considered false copyright management information under section 1202. Nonetheless, Congress should ensure that a court would not mistakenly treat it as such.

Congress also needs to consider the issue of random access memory (RAM) copies more closely. The White Paper, following the *MAI v. Peak* decision, views RAM copies as infringements. We have heard that discussions are underway to provide an exception for purposes of servicing hardware. We are concerned that such a narrow exception may have a negative impact on interoperability. At present, most businesses employ multiple vendor computing environments. If the vendor of a particular application program services that program at a customer site, the vendor’s technicians invariably make RAM copies of the operating system — which might be supplied by a different vendor. If the operating system vendor could prohibit the application software vendor from making these RAM copies, the operating system vendor could impede the servicing of the application software, thereby forcing the customer either to employ the maintenance services of the operating system vendor or to purchase the operating system vendor’s version of the application. Accordingly, we believe that Congress should address the RAM copy issue more comprehensively.

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VI. Conclusion

We understand that Chairman Moorhead has suggested replacing the “primary purpose or effect” test with a “primary purpose” test. We believe that this would improve Section 1201, moving it closer to the EU Software Directive’s “sole intended purpose” test. Many of the other problems in Section 1201 identified by this testimony would remain, however. Still, we believe that Chairman Moorhead’s proposal is an excellent place to start discussions on a provision that will be satisfactory to all affected parties. We look forward to working with the subcommittee on resolution of this issue.

* * *

The American Committee for Interoperable Systems (ACIS) is an informal organization of almost 40 companies that develop innovative software and hardware products that interact with computer systems developed by other companies. ACIS was formed in 1991 to support intellectual property law policies providing for a careful balance between the goals of strong protection and incentives for innovation on the one hand, and the goals of interoperability, fair competition, and open systems on the other.

February 15, 1996

ACIS MEMBERS

Accolade, Inc.
Advanced Micro Devices, Inc.
Amdahl Corporation
America Online, Inc.
Broderbund Software, Inc.
Bull HN Information Systems, Inc.
Chips and Technologies, Inc.
Clearpoint Research Corporation
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New York Systems Exchange, Inc.
Octel Communications Corporation
Passage Systems, Inc.
Phoenix Technologies, Ltd.
Plimoth Research Inc.
Seagate Technology, Inc.
Software Association of Oregon¹
Software Entrepreneurs Forum²
Storage Technology Corporation
Sun Microsystems, Inc.
Tandem Computers, Inc.
3Com Corporation
Western Digital Corporation
Zenith Data Systems Corporation

¹ The Software Association of Oregon consists of 430 software development firms, firms in associated industries, and individuals professionally involved in software development.

² The Software Entrepreneurs Forum consists of over 1,000 software entrepreneurs and developers.

ACISAmerican Committee for Interoperable Systems

**ACIS Comments on
"Intellectual Property and the
National Information Infrastructure"**901 San Antonio Road
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FAX: (415) 336-0530**Introduction**

The American Committee for Interoperable Systems ("ACIS") submits these comments in response to the Working Group on Intellectual Property Rights ("Working Group") preliminary draft report entitled "Intellectual Property and the National Information Infrastructure" (hereinafter "the Green Paper").

ACIS is an informal organization of companies that develop innovative software and hardware products which interoperate with computer systems developed by other companies.¹ ACIS was formed to support intellectual property law policies providing for a careful balance between the goals of strong protection and rewards for innovation on the one hand, and the goals of interoperability, fair competition, and open systems on the other. Because the success of the emerging National Information Infrastructure ("NII") will hinge on the interoperability of a multitude of hardware systems, computer programs and other devices, ACIS offers these comments to assist the Working Group in tackling these very difficult but vitally important issues.

ACIS commends the Working Group for its efforts to examine the current American intellectual property rights regime in light of the emerging NII. President Clinton's formation of the Information Infrastructure Task Force ("Task Force") to address issues related to the development of the NII has been an important step forward

¹ A list of ACIS members is attached.

in the realization of a new information order. The Working Group's role in the Task Force's efforts cannot be underestimated because intellectual property law can either help or hinder the burgeoning NII.

Beyond a doubt, the issues addressed in the Green Paper have no easy solutions. The number of potential problems involving intellectual property rights and the NII is potentially infinite; the Working Group's efforts to grapple with some of these issues should be applauded. Moreover, the Green Paper's analysis of the current state of copyright law is accurate and thorough yet presented in such a way that individuals not steeped in the complex and technical legal doctrine can grasp many of the potential issues of applying copyright law on the so-called "information superhighway."

ACIS concurs with much of the Green Paper's discussion and analysis of the issues addressed. At the same time, ACIS believes that some of the changes proposed by the Green Paper might be inimical to the fundamental purposes of the copyright system. These points of agreement and disagreement are discussed below.

I. Points of Agreement With Green Paper

ACIS wholeheartedly endorses the Green Paper's discussion of the Second Circuit's seminal opinion in Computer Associates International, Inc. v. Altai, Inc., 982 F.2d 204 (2d Cir. 1988). Such an endorsement of the Computer Associates opinion follows from the Green Paper's recognition that the "[i]nteroperability and interconnectivity of networks, systems, services and products operating within the NII will enhance its development and success." Green Paper at 139. The Second Circuit's abstraction-filtration-comparison test for copyright infringement, adopted in Computer

Associates and applied by federal courts of appeal in other circuits,² embodies legal principles absolutely critical to innovators seeking to develop hardware and software that is interoperable with systems that have, for either technical or market reasons, become standards. ACIS urges the Working Group and other arms of the Task Force to endorse the principles enunciated in Computer Associates and the cases that have followed it. Such a step would solidify, from a policy perspective, well-founded principles in the copyright law that relate to interoperability. On the other hand, to extend copyright protection to interface specifications that become the standardized rules of interconnection in the NII would hinder interoperability, impede competition and innovation, and serve as a critical impediment to the implementation of the NII and the principles advanced by the Administration. A balance between access to these standards and protection of the implementation of these standards in program code is required and Computer Associates strikes the proper balance, at least with respect to copyright law.³

ACIS also agrees with the Green Paper's conclusion that implementation of the NII requires no fundamental changes in the current copyright law. Green Paper at 10 (only "minor clarification and amendment" required to Copyright Act). The federal courts have balanced properly the competing concerns that arise in copyright

² See Sega Enters., Ltd. v. Accolade, Inc., 977 F.2d 1510 (9th Cir. 1992); Gates Rubber Co. v. Bando Am., Inc., 9 F.3d 823 (10th Cir. 1993); Autoskill Inc. v. National Educ. Support Sys., Inc., 994 F.2d 1476 (10th Cir.), cert. denied, 114 S. Ct. 307 (1993); Atari Games Corp. v. Nintendo of America, Inc., 975 F.2d 832 (Fed. Cir. 1992); Kepner-Tregoe, Inc. v. Leadership Software, Inc., 12 F.3d 527 (5th Cir. 1993).

³ Similarly, the recognized right to make interim copies of a work in order to separate protected and unprotected elements of a work is essential to interoperability. Such fair uses for the purposes of reverse engineering have been endorsed by at least two federal courts of appeals. See Sega Enters., 977 F.2d at 510; Atari Games Corp. v. Nintendo of America, Inc., 975 F.2d 832 (Fed. Cir. 1992).

cases, especially those cases involving standards and issues of interoperability. The courts are capable of interpreting the Copyright Act to address many if not all of the novel questions that will arise from the creation of the NII.

II. Points of Disagreement With Green Paper

ACIS is concerned, however, that some changes proposed by the Green Paper might, if adopted, upset the delicate balance of competing public policy considerations embodied in the Copyright Act, namely the desire to serve the public interest in the wide dissemination of information and the desire to provide incentives to authors to create new works.⁴ ACIS agrees that protection of content will play an essential role in the successful development of the NII. At the same time, protection of content cannot be the Working Group's only consideration; an equally important consideration is promoting interoperability. However, overly broad intellectual property protection for standard interface specifications in the NII could inhibit such interoperability, recognized by the Working Group as essential to the success of the NII. See Green Paper at 139.

A. Proposed Section 512

The Green Paper's proposed new section 512 to the Copyright Act is particularly problematic. The thrust of the proposed section 512 is to prohibit the importation, manufacture and distribution of devices that circumvent a system or process that prevents illegal copying of protected works. While the goal of providing additional enforcement for section 106 rights is a laudable one, it need not be pursued at the

⁴ These competing concerns have been at the heart of several recent Supreme Court cases addressing copyright issues. See Feist Pubs. v. Rural Tel. Serv. Co., Inc., 499 U.S. 340 (1991); Campbell v. Acuff-Rose Music, 114 S. Ct. 1164 (1994); Fogerty v. Fantasy, Inc., 113 S. Ct. 1023 (1994).

expense of other goals embodied in the Copyright Act. The proposed section 512, as drafted, threatens to do just that.

First, the "primary purpose or effect" test contained in the proposed section is vague and hard to apply. Developers of worthwhile products that have completely non-infringing uses will not know how the "primary purpose or effect" test will be interpreted in litigation years later and will therefore tend to avoid developing and distributing such products. Significantly, the proposed section does not clearly provide for the right to make copies of protected works for purposes of scholarship, research, news reporting and other fair uses specified in section 107 of the Copyright Act, or the right to make copies for other legitimate, legal uses such as making archival copies. See Segal v. Accolade (making interim copy for purpose of reverse engineering is fair use); Vault Corp. v. Quaid Software Ltd., 847 F.2d 255 (5th Cir. 1988) (recognizing right to make archival copies). Without clear protection for legitimate, non-infringing, and fair uses of copyrighted material, and for devices that may be employed for these purposes, the balance will be shifted towards overprotection of individual property rights at the expense of the public good.⁵

⁵ One can easily imagine circumstances in which application of the "primary purpose or effect" test will lead to undesirable results. For example, consider a software vendor who has incorporated an anticopy device in its business software applications. Another vendor develops a mechanism that can circumvent the anticopy device. A year after this mechanism is placed on the market, it is determined that 55% of the copies made using the mechanism are unlawful copies, while 45% of the copies are lawful section 117 archival copies. Under such circumstances, what would be the "primary purpose or effect" of the mechanism? It seems clear that such a mechanism would be illegal under the proposed section 512. It seems equally clear that this result would be inconsistent with the purposes and policies underlying the Copyright Act. To be sure, the makers of the unlawful copies are infringers and should be liable for damages, and, where appropriate, criminal penalties. At the same time, the vendors of the circumvention mechanism should be free from liability.

Indeed, the proposed section is at odds with the rationale of the Supreme Court's opinion in Sony Corporation v. Universal City Studios, Inc., 464 U.S. 417 (1984). The Court in Sony found that Sony could not be held liable for contributory infringement merely because its Betamax video recorder might be used for infringing purposes. The Sony Court carefully balanced the copyright holder's legitimate rights against "the rights of others freely to engage in substantially unrelated areas of commerce," *id.* at 442, and concluded that manufacturers of copying devices cannot be liable for copyright infringement if the device is "capable of substantial non-infringing uses." *Id.* ACIS urges that balance struck in Sony not be disturbed.

In addition, the analogies cited by the Green Paper in support of the proposed section are inapposite. The provision contained in the Audio Home Recording Act that prevents the importation, manufacture or distribution of devices that circumvent a Serial Copy Management System ("SCMS") provides no support for the proposed section 512. In digital audio recording systems that employ a SCMS, the scheme allows the end-user to make at least one digital-to-digital copy of a copyrighted digital original and unlimited copies of a digital source if made through the digital-to-analog converters of the recording device. Thus, the SCMS provides an adequate accommodation to the rights to make fair uses of copyrighted works and to make copies for other legal purposes. The proposed section 512 provides no such accommodation, however, because a copyright holder may implement a scheme whereby no copies of the work, lawful or unlawful, may be made. Therefore, a provision that bans the importation, manufacture or distribution of devices whose "primary purpose or effect" is to circumvent such a scheme is too rigid and effectively prohibits the exercise of legitimate and legal rights to

duplicate protected works.

Likewise, section 605 of the Communications Act is not analogous to most all situations that would be covered by the proposed section 512. Section 605 prohibits devices that allow the unauthorized decryption of satellite cable programming. Such decryption is fundamentally different from making copies of protected works because unauthorized decryption involves gaining access to material that the recipient has not paid for and has absolutely no right to see. On the other hand, the lawful owner of a copy of a work not only has the right to view the work but in some instances may make copies of the work without infringing the copyright. See, e.g., Green Paper at 133 ("The Copyright Act exists for the benefit of the public. To fulfill its constitutional purpose, the law should strive to make the information contained in protected works of authorship freely available to the public.") A broad prohibition on decryption devices is therefore tolerable in the satellite cable programming context, but a prohibition similar to the proposed section 512 is not appropriate in a broader copyright context.

ACIS members agree with the Green Paper that the NII may present unique issues of enforcement and protection of legitimate copyrights. These concerns, however, can be addressed by a narrower, carefully crafted regulation of devices designed to defeat anti-copying systems that focuses on the uses to which those devices are put rather than the devices themselves. In particular, ACIS suggests a provision that tracks the approach taken by the European Union (EU) on this issue. Article 7 of the 14 May 1991 Council Directive provides in relevant part:

1. Without prejudice to the provisions of Articles 4, 5 and 6, Member States shall provide, in accordance with their national legislation, appropriate remedies against a person committing any of the acts listed in subparagraph[] (c) below:

....

- (c) any act of putting into circulation, or the possession for commercial purposes of, any means the sole intended purpose of which is to facilitate the unauthorized removal or circumvention of any technical device which may have been applied to protect a computer program.

Notwithstanding this anti-copying provision, the Directive makes clear that such protection does not prohibit the legitimate copying of programs. Articles 4, 5 and 6 of the EU Directive describe the rights of the copyright holder and the rights of the public to copy or disassemble a work. These rights are similar to those granted to the public under the Copyright Act and recognized by the case law. For example, Article 5(2) allows the making of a backup copy; Article 5(3) allows a legal holder of a copy of a program to study the functioning of the program to determine its underlying ideas and principles; and Article 6 provides for the right to decompile a program to make interoperable programs.

The EU provision provides clearer guidelines for legal and legitimate copying than the proposed section 512 while not sacrificing the important goal of prohibiting piracy. Moreover, the EU provision minimizes the risk of chilling the development of legitimate and desirable products by eschewing the "primary purpose or effect" test in favor of a "sole intended purpose" test. ACIS therefore suggests that any proposed changes to the Copyright Act follow the EU's approach.

B. Proprietary Standards

A second area of concern to ACIS is the uncertainty regarding the Working Group's views on whether elements of works that become standards may have proprietary content. The Green Paper as drafted contains some references to

intellectual property rights that may exist in standards, but the scope and nature of the rights to which the Working Group refers is unclear. The Green Paper outlines no concrete proposal on this issue; nonetheless, ACIS is concerned about the implications of the notion that standards for interoperability may have proprietary content. If the Working Group is referring to patents on an invention that has become an industry standard, the proposition is relatively uncontroversial, assuming that the invention can meet the strict statutory standards of novelty and non-obviousness. If, however, the reference is to asserted copyright interests in a software interface or other interface standard, the proposition is problematic in light of current copyright law. The Second Circuit's decision in Computer Associates and its progeny make clear that those elements of a software program that are essential to create interoperable systems or programs, i.e., interface specifications, are not protectible expression. Under the Computer Associates analysis, these functional elements are filtered out and the remaining, expressive elements of the work are accorded copyright protection.

The question of access to critical interfaces in the context of the NII is still unclear. This is one of the issues being discussed in the context of telecommunications reform legislation currently pending in Congress. Section 405 of H.R. 3626, as passed by the House, deals with interoperability and access to interfaces and acknowledges that monopoly control of critical interfaces could produce bottlenecks at critical NII junctures.⁶ As the issue of standards and interoperability are central to the development

⁶ In fact, the language of the bill passed by the House shows a strong preference for the development of open and accessible NII systems. See H.R. 3626 ("in order to promote diversity, competition, and technological innovation among suppliers of equipment and services, it may be necessary to make certain critical interfaces with such networks open and accessible to a broad range of equipment manufacturers and information providers").

of a robust NII, the Working Group's conclusions should made clear its position on the issue, taking into account the case law and the relevant policy considerations.

C. Antitrust and Intellectual Property

ACIS is also concerned with the Green Paper's conclusion that intellectual property rights inhering in de facto technological standards pertaining to the NII can be "reigned in" through federal antitrust laws. Given the importance of the development of an open and accessible NII, we must be vigilant in preventing control, through the exercise of "intellectual property rights," of the standard interface specifications critical to the operation of the NII. The primary focus, however, for controlling the abuse of intellectual property rights that are or become de facto NII interface standards should be the intellectual property law itself, not the antitrust laws.

The intellectual property law balances the goals of incenting and rewarding creativity, originality and innovation, on the one hand, and disseminating ideas and information for use by society generally, on the other hand. Thus, the intellectual property law promotes the maximization of consumer welfare and the progress of society. The public welfare is diminished if this balance tips in favor of overprotecting the first set of interests at the expense of the latter interests. Such loss of welfare occurs even in circumstances when the imbalance does not confer market power on particular individuals or firms, the point at which the imbalance triggers concern under the antitrust laws. Therefore, while the antitrust laws have an important role in policing open standards, they cannot be relied upon to be the sole, or even the primary focus for maximizing social welfare.

For additional reasons, it is doubtful that without a primary focus on properly defining intellectual property rights, the antitrust laws can be effective in making de facto NII interface standards sufficiently open to protect the public interest. The antitrust laws' concern about the unlawful use of market power becomes dangerously circular if the alleged abuse flows from overbroad intellectual property rights.⁷ Fundamentally, any market power created by the ownership of standards for interoperability is in part the result of the scope of protection afforded. If the scheme of such rights is too broad, we can not expect the antitrust laws to remedy the situation.

A second and more practical point is the difficulty of policing abuses of de facto NII standards through the antitrust laws. Comprehensive antitrust investigations and private enforcement are time-consuming and expensive; the time and expense

⁷ This circularity is apparent from the following hypothetical example: A small vendor seeks to distribute its new and innovative product on the NII, but to distribute the product it must make use of a standard protocol owned by another company. Because the protocol has become a standard on the NII, the vendor must obtain a license from the protocol owner. The vendor negotiates with the owner of the protocol to obtain a license, but negotiations break down and the rights holder eventually refuses to license the protocol to the vendor. The vendor, apparently having no other recourse, approaches the Department of Justice, asserting that the rights holder's refusal to license the protocol is a violation of antitrust laws. The Department of Justice refuses to take any action against the rights holder, citing its Guidelines For the Licensing and Acquisition of Intellectual Property (presumably by this time the Guidelines would have been formally adopted by Justice). See Draft Antitrust Guidelines § 2.2, 59 Fed. Reg. 41,340 (1994) ("Nor does such market power [conferred by ownership of intellectual property] impose on the intellectual property owner an obligation to license that technology to others.") (citations omitted). The rationale is that if the rights holder has a valid property interest in the protocol, its decision to exclude a competitor from using the protocol should not be illegal. The problem of abuse of de facto NII standards, therefore, cannot be addressed solely by the antitrust laws. Under the scheme advanced by the Green Paper, however, the vendor has no recourse under the intellectual property laws either because of the mistaken notion that "unfair licensing practices can be dealt with through the antitrust laws." Thus, the scope of any property rights in de facto standards should be addressed by defining properly the scope of the applicable intellectual property rights.

required to conduct an adequate investigation of monopolistic uses of NII standards could prove disastrous to free competition, and allow the holders of standards to kill their competitors at a critical time in the development of the NII. The uncertain outcomes of such antitrust "solutions" are an additional impediment to businesses attempting rationally to structure strategies in relation to the NII. It seems far more efficient to focus on the scope of the rights in the first instance, rather than trying to curb their abuse after the fact.

CONCLUSION

ACIS believes that intellectual property law will play an important role in the successful development of the emerging NII. In general, intellectual property law is capable of addressing the issues likely to be raised during the development of the NII. Major changes or wholesale revision of intellectual property law is therefore unnecessary; instead, only some minor modifications are needed. The intellectual property law should be used to shape the emergence of the NII in the following ways:

1. The abstraction-filtration-comparison test in Computer Associates and adopted by other cases should be applied to all claims of copyright infringement of standards for interoperability. The government should endorse this approach and urge other courts to adopt it.
2. Protection of content that will flow over the NII is essential. Our zeal to protect it, however, should not be at the expense of other equally important considerations. In this regard, any regulation of devices designed to defeat anti-copying systems should be narrowly and carefully crafted. ACIS suggests a provision similar to Article 7 in the EU Directive or employing a "substantial noninfringing use" test.

3. Proprietary rights in NII standards for interoperability should be very narrow. Ensuring open access to NII standards for interoperability should not be made primarily the purview of antitrust law, although antitrust law will have a role to play. Rather, the proper balance between the public interest and the rights of creators of standards of interoperability falls within the traditional purview of intellectual property law.

September 7, 1994

ACIS

American Committee for Interoperable Systems

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¹ The Software Association of Oregon consists of 430 software development firms, firms in associated industries, and individuals professionally involved in software development.

² The Software Entrepreneurs Forum consists of over 1,000 software entrepreneurs and developers.

September 1, 1994

**"NII COPYRIGHT PROTECTION ACT OF 1995"
(H.R. 2441)**

**WRITTEN TESTIMONY
SUBMITTED BY SUN MICROSYSTEMS, INC.**

FEBRUARY 15, 1996

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INTRODUCTION:

These hearings are particularly timely given the power of the forces at play and the speed with which new technologies are being developed that stand to change completely the way information is created, transmitted and sold. Companies here and abroad are racing to try to cash in on these new opportunities. Federal and state governments are trying to develop regulatory structures suitable for the new information age. And, foreign governments, too, are struggling with the regulatory challenges posed by new and ever-changing technologies. Our standard of living and the structure of our society will depend, to a great extent, on the way in which these new technology markets develop and the decisions made about them by government officials. This is an awesome challenge. It requires industry and government to work together. Collectively, by making sure the right decisions are made for the right reasons, we can meet this challenge and reap the full rewards of the information age. With respect to HR. 2441, the NII Copyright Act of 1995, it is absolutely essential that more be done to understand the technology involved and the intricacies of the law in question before the legislation is passed. We welcome this opportunity to provide written remarks, and hope to work closely with Congress and other policy makers to ensure that this legislation is carefully crafted to avoid the possible unintended consequences of stifling innovation, limiting access or harming competition. At this time, we are concerned that the bill in its current form could have these very unfortunate effects on the market and development of the NII.

BACKGROUND ON SUN:

Sun has received considerable media attention over the past year for its involvement in the Internet and network oriented software, such as the Java programming language. These developments have earned Sun the reputation in the more popular press of a leading U.S. computer networking company. The fact is Sun has been pursuing its vision of open systems and network-centric computing since its inception over a decade ago. It is now that the computer industry as a whole is moving in this direction that Sun is receiving so much attention as a market leader.

Sun has always been willing to challenge the "mainstream" computer industry by pursuing its open systems business model and forging ahead with new technologies. Sun was started by four graduate students in their mid-twenties who envisioned a computer that could sit on the desktop and provide a level of computing power similar to much larger machines at a fraction of the cost. Importantly, Sun founders Vinod Khosla, Andy Bechtolsheim, Scott McNealy and Bill Joy believed that to be most useful, Sun computers should be based on open technologies. This unique concept would allow customers to mix and match Sun systems with products made by other vendors. Customers no longer would be locked into buying proprietary technologies made by one company.

Sun's corporate vision -- to make the maximum computing power available to a broad user audience through open technologies -- has not changed since the company's inception. What has changed is the computing environment and the market. Thirteen years ago, computing power was often centralized within companies on mainframes and minicomputers. The actual computers available to many users were, in fact, "dumb" terminals, or stand alone, low performance personal computers. The high performance computers available at the time were prohibitively expensive for many users. These factors helped make Sun's networked workstations wildly successful. Sun's earliest markets were the education and research markets. Soon thereafter, Sun's market expanded to include corporate and technical users. Over time, Sun has moved into such markets as stock trading, telecommunications and publishing.

Today, Sun is an "enterprise" computing vendor. We help large and medium sized companies overcome the limitations of their legacy systems. We also are helping to lead the industry into the next generation of computing -- network-centric computing. Sun has developed a new computer language -- Java -- that will make the Internet an interactive environment for users. Since 1982, Sun has matured from a young start-up company to an industry leader, and the leading UNIX-based company in the world. Sun now has over 16,000 employees worldwide, and our revenue for the current fiscal year is expected to exceed \$7 billion, over half of which will be earned outside the U.S.

THE EVOLUTION OF THE INDUSTRY:

Taking a look at the history of open computing versus closed computing provides important insight into both where the industry is and where it is going. Not long ago, the computer industry was dominated by a number of large, vertically integrated companies. These firms, such as IBM, Control Data and DEC, sold mainframe and, later, minicomputers based on proprietary technology. Because their equipment would not work with products made by other companies, customers essentially were forced to rely on a single firm for all of their service and technology solutions. As a result, a few of these early dominant firms were able to define the rules of the computer industry and earn impressive profits.

To understand how a single company could gain control of the "rules of the road" it is helpful to look at the economic concept of "network effects." This concept is based on the premise that the more people who use a particular product or system, the more valuable it becomes. Take the traditional telephone system as an example. Each new user added to the system makes the entire system more valuable to consumers. The same holds true for computers. Computer users want to purchase products that are compatible with other products. It is this demand driven force, that over time has led to a fundamental shift in the industry towards more open, network-centric computing solutions that enable users to mix and match computer systems, and to link with their other locations and institutions.

Unlike the proprietary systems owned by individual companies, the Internet is based on a set of open standards that no one owns. All of the key technical protocols on which the Internet is based derive from a public-private sector standards setting process dedicated to maximizing the number of individuals and firms able to use the Internet. As a result, there has been enormous growth in the Internet. Indeed, it is an example of positive network effects. As more and more users have gained access to the Internet, it has become more valuable. Based on open systems, any firm can develop applications and uses for the Internet and participate in the information revolution. Moreover, as telecommunications reform brings down the cost of bandwidth, and as advances in software technology continue, millions of users will be able to more readily afford the access that will make participating in cyberspace a reality.

This new reality of the information age is still taking shape. A growing number of industry watchers, led by George Gilder, believe a few upstart firms have developed software that might just succeed in binding the different, and currently disconnected, parts of cyberspace together.

Netscape has developed a browser technology that enables users to easily navigate the Internet. In the open tradition of the Internet, the company has been giving away its software to individual consumers and licensing it for nominal fees to firms. As a result, Netscape has captured a lion's share of this new market and is on the way to setting a new standard. Sun has developed a new open software language called Java. Unlike other software languages, Java is designed to allow programmers to write programs that run on the network rather than the desktop computer. This language is truly revolutionary in that it could enable users to do everything they now do on their PC, and possibly a good deal more, all from the network. To date, hundreds of applications have been written for Java.

Together, these two technologies could shift the competitive distribution of power away from the desktop -- or away from the dominant PC operating system -- and transfer it to the network itself. Network-centric computing could do this by releasing consumers from the confines of their PC's and enabling them to access a near limitless number of applications and services for a fraction of their current cost. Indeed, it is possible that the PCs of the future could be simple, low cost machines used primarily to access the treasures of the network.

These market forces and the innovations of the open network-centric firms could rebalance the competitive dynamics of the information marketplace and would lead to new distribution models and perhaps a new economic paradigm. Just about every technology firm and technology thinker would like to see innovation and competitive forces work properly in high tech markets. The concern of course, is that government action could prematurely derail these trends if it is not very carefully crafted. Sun is concerned that the legislation (H.R. 2441) as currently formulated tends to favor

established, entrenched interests, and may unintentionally stifle the many new and exciting technology firms that are emerging.

PROPER BALANCING OF INTELLECTUAL PROPERTY POLICIES IS ESSENTIAL

Balanced intellectual property protection is an essential facet to maintaining a competitive environment in U.S. hi-tech sectors. There is a fundamental intersection between competition policy and intellectual property policy that often is overlooked. Some view these two -- competition law and intellectual property law -- as very distinct and potentially competing forces. In fact, the relationship between the two is far more complex and quite complementary. The idea that antitrust law exists to ensure and promote competition, while the intellectual property laws exist only to protect the work of authors and inventors, provides only half the picture. When we consider the historical and constitutional roots of our intellectual property laws, there is a critical, pro-competition aspect inherent in these laws that is often overlooked.

The Constitution empowers Congress to pass laws "to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries (U.S. Constitution, Article 1, Section 8, clause 8)." It is the clause in the Constitution that is the basis for intellectual property laws -- making the underlying purpose of these laws "to promote the progress of science and the useful arts." Thus, separate from antitrust or other legal doctrines, there is a pro-innovation, pro-competition goal intrinsic to our intellectual property system. Since 1790, Congress and the Courts, through statute and case law, have worked to maintain this balance between promoting innovation and protecting the rights of authors and inventors. That is why there are limitations on the monopolies granted by both patents and copyrights.

In the computer software context, the courts have managed to maintain this balance by careful application of traditional copyright principles to the relatively new medium. These include the idea/expression dichotomy, the merger doctrine and scenes a faire, as well as fair use. These principles, as applied in court cases over recent years, such as Computer Associates v. Altai, Gates v. Bando, Sega v. Accolade, Lotus v. Borland, and Bateman v. Mnemonics, provide some guidelines to the boundaries of copyright protection for computer software. In Sun's view, the most significant guidance provided by these cases is that interface specifications should not be protectable under copyright and that reverse analysis should be considered a fair use when it is performed for legitimate reasons, such as debugging software or developing interoperable products.

Sun is the owner of plenty of intellectual property, and without question we want to make sure our copyrights, patents and trademarks are adequately protected. At the same time, we are leery of attempts to shift the balance of intellectual property law toward the protection of rights, without providing the proper counterbalances to ensure

that additional protection does not hamper the promotion of innovation. If you consider the rapid and seemingly limitless growth of the Internet and the number of people accessing information on-line -- and the network effects that result -- the potential negative effect of extending the scope of protection for computer software is great. Importantly, we are talking about the amount of control, or the extent of the monopoly, granted by copyright -- not about appropriate enforcement or changes to maintain the same rights that currently exist. An expanded scope of protection under copyright could seriously hamper the growth and deployment of computer networks; the net result of which would be to stifle innovation. On the other hand, by carefully maintaining the balance that exists today, we can ensure creators a fair return for their work, while at the same time enabling users to enjoy the positive benefits of network effects. This is especially important since ultimately, the technology will make us ALL creators AND users of intellectual property.

Clearly, looking at the history of the industry, there are examples of established, proprietary interests attempting to limit competition by exercising intellectual property rights. And, this is likely to continue as the industry evolves and dominant vendors work to maintain their current positions. One way for them to attempt this would be to pursue additional intellectual property protection beyond what they are currently granted. Given the clear, negative effects on competition in the industry, this is a movement the Congress should be skeptical of. Moreover, companies like Sun are examples of how the current balanced system works -- that competition, efficiency and protection of intellectual property can and should co-exist. At Sun we have a lot of intellectual property that we protect vigorously. Yet, we have been incredibly successful (and have made a lot of money and created a lot of jobs), within a highly competitive and open segment of the industry (i.e. UNIX workstations and UNIX software).

PARTICULAR CONCERNS ABOUT THE LEGISLATION:

- The new transmission right may have far reaching effects that are not yet well understood. To some extent this codifies current case law that has found transmission to be a form of distribution. However, as written it could also extend the current bundle of rights granted under Section 106 beyond what has been granted under existing case law.
- By dealing with how a creators rights are protected in "transmissions" without at the same time acknowledging the "fair use" exceptions that would apply to "transmissions" we run the risk of tipping the carefully balanced system which currently exists. This is obviously not in the interests of users, who constitute our customers, but it is also not in the interest of intellectual property owners who also make fair use of existing materials when creating new and innovative works. Sections 106 and 107 are two sides of an equation that needs to remain in balance to ensure that the intellectual property system functions properly and that we all prosper both economically and

intellectually. It is not possible to deal with these issues as completely separate or unconnected. The relationship is intrinsic, and both sides of the equation need to be taken into consideration before the legislation is finalized.

- The failure of the legislation to deal with the issue of on-line liability is a serious omission. It is again an issue that should not be put off for future legislation. H.R. 2441, by creating the transmission right, actually increases the potential for liability, and therefore necessitates that this issue be dealt with now, rather than later. Aside from companies whose sole business is to provide commercial access to on-line data, companies like Sun provide internet access to its 16,000 employees, and could be held accountable for the actions of these employees. Clarification of this liability is critical to make sure that the trend of companies to become more network oriented is not retarded. Furthermore, Sun has strong ties to the education community as university researchers were some of our first customers. We have also been very active in efforts to wire schools and to ensure that our nation's students have network access to information resources. The essential role of educational and library institutions in providing access to the network could be negatively impacted if the questions of liability are not addressed and clarified.

- Sun wholeheartedly supports attempts to enforce the law and prevent piracy of copyrighted works, however we are very concerned about the scope of Section 1201 of the bill. By focusing on "devices", "products" and even "components" that have the "primary purpose or effect" of circumventing anti-copying protection this provision could seriously stifle innovation and new product development. The reason is that the provision is written very broadly, and the standard of "primary purpose or effect" is very vague. Thus, many inventions that have significant legitimate, legal uses, but also have some potential infringing use, may never be developed since the risk of liability will be too great.

- Lastly, yet perhaps most importantly, there needs to be a more expansive discussion of technology and market developments. Right now it seems there is only a one-sided understanding of the technology and market developments serving as the basis for this legislation. Indeed, digital technology presents new challenges in terms of protecting intellectual property that is distributed via the network. The new technologies also present a challenge to established distribution methods. At the same time, technology provides new means to protect content, and all sorts of new ways for individual creators to disseminate and prosper from their work. As just one example, in discussions about the First Sale Doctrine, there has been much talk about how digital distribution makes the applicability of this concept unrealistic in the NII context. Yet, it does not seem that anyone has taken time to explore the potential for a technological solution that could make the concept of First Sale practical -- for example, if a product distributed on-line automatically destroys the original copy when it is forwarded. Thus, only one copy remains in existence as a result of a technological safeguard incorporated into the product, rather than reliance on the user

to comply with the law which raises the question of enforceability. There seems to be an emphasis on the ways technology may harm the rights of content owners, and the ways in which the law can correct these abuses. This approach seems troubling if we fail to thoroughly examine the ways in which technology can protect and promote the rights of content owners at the same time.

CONCLUSION:

The policy decisions that are made over the next few years have the potential to not only shape the structure of the information age, but to affect the structure of our society. We have a national interest in making sure that this future is based on the most vigorous and fair competition possible. Intellectual property laws must be very carefully crafted to avoid the unintended consequences of stifling innovation or hampering competition. Sun looks forward to working with policy makers in Congress and the Administration to further explore these issues and to work towards well balanced, productive solutions.



AMERICAN ASSOCIATION
of ADVERTISING AGENCIES

Washington Office

Statement
by the
American Association of Advertising Agencies
on
HR 2441
"NII Copyright Protection Act of 1995"
Before the Subcommittee on Courts and Intellectual Property
Committee on the Judiciary
United States House of Representatives

February 15, 1996
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Introduction

We are pleased to comment for the record today on HR 2441, the NII Copyright Protection Act of 1995, to adapt the copyright law to the digital networked environment of the National Information Infrastructure (NII) and other purposes.

The American Association of Advertising Agencies is comprised of approximately 650 member agencies with about 1,300 offices throughout the United States. Although advertising is their defining occupation, advertising agencies provide a full range of marketing services to clients, including public relations, direct marketing, and promotion. Currently, AAAA agencies are in the forefront in interactive marketing research and development, and they will provide significant service to clients as the interactive and other marketing opportunities made available by the "information highway" become reality.

We begin with the recognition that America's existing mass media are the envy of the world. They have evolved through the productive cooperation of advertising agencies, advertisers, broadcasters and cablecasters, the entertainment industry, the telecommunications industry, consumers and the government. While the emerging media exemplified by the information highway will require new relationships, advertising and related marketing techniques will continue to play a crucial role in the delivery of valuable program service to American consumers.

At the same time, advertising will continue its classic functions of providing information to consumers, stimulating the development of new and innovative products and lowering prices.

The Digital Media

As you know, all advertising incorporates valuable intellectual property. The integrity of trademarks, copyrights, artwork, slogans, logos and advertising claims must be maintained. The protection of advertising copy and illustrations, as well as the protection of all aspects of a brand, are essential for advertising agencies and their clients.

Advertisers are rightfully concerned about protecting their intellectual property used in interactive media. An advertiser's intellectual property identifies the source of the ad and demonstrates its authenticity. The advertiser's trademark acts as a "signature" on an ad.

The interactive media are based on digits, making the integrity of that digital information very important. Because digits can be redirected, reformulated, changed, and copied, the question becomes how this "tampering" may affect advertising intellectual property claims.

The advertising industry needs the ability to protect intellectual property used in advertising messages. Advertising currently uses a combination of intellectual property to develop the advertising messages. For example, commercials on TV may utilize copyrighted music (either owned by an advertiser or licensed to the advertiser), original photography, slogans, original creative copy, and trademarks that establish the source of the goods/services referenced.

All these same elements of intellectual property are also being incorporated into interactive advertising currently found on the on-line services and the Internet. Individual entrepreneurs and large multinational advertisers are meeting on the common electronic ground of the Internet to communicate to consumers.

As we move forward, the branding of HomePages and the protection of trademarks and "url" domain names will each become increasingly important. The nature of the interactive on-line media allows for information and claims to be disseminated regardless of the authenticity of the message. There is an opportunity to "lift" or wholly infringe copyright or trademark information with great ease. Such information can appear "official and credible," when it is not.

There are already well over 100,000 HomePages on the Internet. Our founding fathers considered the protection of trademarks important to a free marketplace. We should now insure that same protection for intellectual property in this new media marketplace.

Advertising Funds New Media

Advertising currently helps fund the traditional print and broadcast media, and has enabled the dissemination of news, programming and general information to consumers at a fraction of the actual cost. Similarly, advertising shall serve as a fuel for the new media.

The Internet was not originally invented for advertising, but advertising and sponsored electronic programming are contributing to its growth. Currently, laws protect advertisers' ownership rights in the advertising they create, and in the elements of intellectual property incorporated into that advertising. However, the Internet is often understood as being a free environment where "freeware" is shared and "netiquette" controls. This "freedom" perception has created a false belief that all content and information on the Internet is "free."

Were advertisers' intellectual property rights not recognized, there would necessarily be a weakening or dilution of very valuable intellectual property, and damages owed to the advertiser. Tolerance of infringement could easily result in consumer confusion, and significantly undermine the advertising support for these new interactive media.

Support and Questions

Our primary message today is to provide positive support for the goals of HR 2441 and to raise three questions to be considered prior to its adoption into law. We also agree with the important issues raised in similar comments in this proceeding by the Association of National Advertisers and the International Trademark Association (INTA)¹.

Our three questions are:

1. Does the law of copyright need to be changed to insure copyright protection in the context of the new interactive media?
2. Assuming copyright law is changed, shouldn't trademark law be changed concurrently?
3. Can the contemplated changes in the intellectual property rights be used to strengthen international protection?

¹ We are particularly concerned about the current practice of assigning "domain names" for third parties that can be easily confused with the trademarks of established owners.

We use as the starting point for our discussion the Report of the Working Group on Intellectual Property Rights (Green Report) released in July, 1994 by Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks.

Most important, we agree with the tentative conclusion of the Green Report that the law of intellectual property and trademarks is like a coat that is "getting a little tight" but is more in need of alteration than replacement. The essential theory of the Green Report is correct, i.e., these property rights in the context of the NII must be maintained in much the same way as in other media. Moreover, we agree that the standards that exist today for broadcast and similar media provide the appropriate grid for the eventual digital environment of the NII.

The Green Report notes the use of the NII will require that existing laws be reviewed and evaluated to ensure that the law will protect all intellectual property "published" and otherwise "transmitted" over the medium. For example, product brand names and identifiable images must not be used on the NII without the expressed permission of the owners of that property. The opportunity for consumer confusion is very real, leading to serious harm to the underlying product brand image.

However, as we understand it, the Green Report does not recommend the adoption of new legislation in this area. We look forward to the testimony of all interested parties in this proceeding, including that of the Commerce Department and the

Commissioner of the Patents and Trademarks. We commend the members of this Committee for proceeding carefully in this matter and considering the need for this legislation before moving forward.

Trademarks

The Green Report and proposed HR 2441 recognize that intellectual property used in interactive digital media needs protection. However, the increase in sanctions under the copyright law proposed by HR 2441 would not extend to the area of trademarks.

The sponsorship opportunities on-line are almost without limit - it is appropriate to consider whether some of the issues embraced to protect copyright issues in the electronic media should also be considered for the trademark category of intellectual property.

The Green Report concluded that trademark law need not be amended. We are concerned, however, that if the law of copyrights is changed in HR 2441, but the law of trademarks is not concurrently changed, this could lead lawyers, judges and the public to conclude that trademarks have less protection under the law. Therefore, we recommend that the Committee seriously consider adding trademark protection to this bill if the existing proposal of HR 2441 is adopted.

International Ramifications

The international issues regarding intellectual property in interactive advertising also require serious examination. The fact that international intellectual property laws are inconsistent has caused conflicts among intellectual property holders for years, and has been the subject of significant GATT negotiation. By placing intellectual property in cyberspace, advertisers must be assured that they are not placing this valuable intellectual property at risk.

The following excerpt is from The Global Information Infrastructure: Agenda for Cooperation, written and presented by the U.S. Information Infrastructure Task Force at the G-7 Conference on the Global Information Infrastructure, held in Brussels in 1995.

"If users do not believe that an information infrastructure is a trustworthy, reliable system, they will be reluctant to use it... users must be confident that the messages they receive are authentic..."

Advertisers are also very concerned that the consumers and users of the information infrastructure, the interactive media, only receive messages that are accurate and authentic. Such misappropriation of intellectual property creates consumer confusion, potentially weakens valuable assets, and can lead to discouraging use of the electronic media by both advertisers and consumers.

The International Chamber of Commerce, Statement on the GII presented to the G-7 meeting discussing GII issues, included a statement regarding advertising's role. The ICC statement noted that it was important to:

"Create an environment within which freedom of commercial communication is respected. Governments should recognize potential benefits to the GII of the free flow of advertising... Advertising (has)... the potential to serve as a source of funding for the GII, thereby making GII services more rapidly and widely accessible."

Given this international dimension, we suggest that before passage of HR 2441, the Committee fully consider whether this proposal can be amended so as to strengthen these intellectual property protections throughout the world.

Respectfully submitted:



Harold Shoup
Executive Vice President &
Head of the Washington Office
American Association of Advertising Agencies

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February 15, 1996

THOMAS M. SMALL

The Honorable Carlos J. Moorhead
Chairman
Subcommittee on Courts
and Intellectual Property
B-351C Rayburn House Office Building

Dear Chairman Moorhead:

This letter is in response to your request for my written comments on H.R. 2441, the "NII Copyright Protection Act of 1995." I regret that I was out of the country and unable to be available to testify at the February 8 hearings on H.R. 2441, and therefore greatly appreciate the opportunity to submit these written comments.

As background, I am a practising attorney specializing in intellectual property matters, and have been active in this field since 1960. I am admitted to practice in Indiana, Illinois and California, and presently am the senior partner in the Los Angeles firm of Small Larkin and Kiddé. I am past-Chairman of the California State Bar's Patent, Trademark and Copyright Section, and past-President of the Los Angeles Intellectual Property Law Association, and currently am active in copyright infringement litigation against online service providers and individuals who have posted materials on the Internet in violation of copyrights of my firm's clients.

In preparation for this submission, I have been briefed on the February 8 hearing, and have reviewed some of the written submissions, and therefore tailor my comments to the topics addressed there. In particular, I have been informed as to the comments of Mr. Stephen M. Heaton of CompuServe, Inc., representing views of online access providers, and have reviewed the comments of William J. Cook, including his summary of the background decisions in this field and the experiences of copyright owners in attempting to protect their copyrighted works against online infringement. My viewpoints and my experiences coincide closely with those of Mr. Cook. In the interest of conciseness, I will not restate the details in these respects, but rather will attempt to provide comments which will supplement what has been submitted.

SMALL LARKIN & KIDDE

The Honorable Carlos J. Moorhead
February 15, 1996
Page 2

At the outset of my comments, I would like to emphasize one point that is fundamental with respect to the question of the proposed responsibility of access providers to remove materials from their systems after receiving notice that those materials infringe the copyrights of a copyright owner. This point is: when an access provider is notified that infringing material is present on the provider's system, the primary infringement already has occurred and what is being addressed is further infringement, by downloading, further transmission, or the like. In other words, removal of the materials constitutes damage control, and does not have any effect on the initial infringement. Accordingly, it is the least that should be done to protect copyrights.

My specific comments are as follows:

- I. An "actual knowledge" standard provides an inadequate basis for access provider liability for online copyright infringement

During the February 8 hearing, Mr. Heaton of CompuServe advocated that access providers should only be liable for online copyright infringements by subscribers where the access provider has actual knowledge of the infringement. Further, Mr. Heaton suggested that access providers should not remove the allegedly copyright-infringing materials, from their networks until they have "actual knowledge" that the challenged materials infringe a copyright. According to testimony elicited by Congresswoman Schroeder, Mr. Heaton would not consider an access provider to have "actual knowledge" unless a court had made a finding of infringement, or had ordered the removal of the challenged material.

For a variety of reasons, I believe an actual knowledge standard should not be enacted.

- A. An actual knowledge standard will encourage access providers to remain ignorant of copyright infringements on their networks

If access providers are only liable for copyright infringement where they have actual knowledge of the infringement, they will have a disincentive to prevent online copyright infringement. An exclusive "actual knowledge" standard means that access providers can avoid liability for copyright infringement by avoiding actual knowledge of an infringement. The potential avoidance of liability would give access providers an incentive to be without knowledge. They would have an incentive to avoid all

SMALL LARKIN & KIDDE

The Honorable Carlos J. Moorhead

February 15, 1996

Page 3

activities that may give them knowledge of copyright infringement, such as reporting to the courts or a copyright owner incidents of likely infringement that have come to their attention.

The result of holding access providers liable for copyright infringement only where they have actual knowledge of an infringement will be to encourage access providers to remain ignorant of online infringement. By encouraging ignorance of copyright infringement, an actual knowledge standard would significantly impair the protection of copyrights.

- B. An actual knowledge standard will give access providers an incentive to discontinue policies currently designed to prevent copyright infringements on their net works**

Making an actual knowledge standard the exclusive standard for liability would correspondingly rob access providers of the very incentive they now have to report and guard against suspected copyright infringement: potential direct and vicarious liability for infringement. Without fear of direct or vicarious liability, access providers would have no incentive to investigate and try to prevent online copyright infringement. In fact, the potential for liability where the access provider has actual knowledge of the infringement gives the access provider an incentive to avoid any activities, such as the investigation of infringement allegations, that might give them knowledge.

Therefore, an actual knowledge standard will encourage access providers to suspend the investigation of copyright infringement, for fear that such actions may lead to actual knowledge of infringement, and thus potential liability for infringement.

- C. An actual knowledge standard runs contrary to the structure and purpose of copyright law**

Finally, and perhaps most importantly, the imposition of an actual knowledge standard would do violence to the structure and purpose of present U.S. copyright law. Since its creation, the U.S. copyright law has been a strict liability law. Neither intent nor knowledge has ever been an element essential to copyright infringement. Intent and knowledge do play a role, however, in determining liability for damages. Congress chose to protect copyrights through a strict liability regime because even innocent infringers deprive authors of the value of their copyrights, and perhaps because lack of knowledge is too easy to assert as a defense.

SMALL LARKIN & KIDDE

The Honorable Carlos J. Moorhead
February 15, 1996
Page 4

Congress' wisdom in providing a strict liability standard for copyright infringement has been confirmed by recent developments in online communications. Though a person may not know that he is infringing a copyright by uploading a photograph to several Usenet newsgroups, he nonetheless has significantly, if not irreparably, damaged the value of the copyrights in the photograph. And though an access provider may not know that it has reproduced and distributed thousands of infringing copies of the copyrighted photograph, the copyrights in the photograph have been seriously damaged by the access provider's actions. In the online world, the damages caused by "innocent" infringement are potentially so large that a strict liability regime is doubly important for protecting copyrights.

D. An actual knowledge standard would represent poor policy-making

The imposition of the proposed actual knowledge standard would represent poor policy-making. A good policy response to the tremendous and growing threat that online copyright infringement presents to the continued vitality of copyrights would be to increase the protection of copyrights in the online world. However, the actual knowledge standard would greatly reduce the online protection of copyrights.

- 1. Though the Internet presents a significantly increased threat to the value of copyrights, an actual knowledge standard would do less to prevent copyright infringement than current law**

The proposed actual knowledge standard would not even make access providers liable for copyright infringement where the access provider has not removed from its system material which it independently knows to infringe a copyright. The actual knowledge standard would only subject the access provider to liability for refusal to remove the infringing material after being presented with a court order. This standard therefore will do nothing to prevent the additional damage that can be done before the issuance of a court order. The actual knowledge standard thus serves only as a mechanism to impose liability for damages after the court order has issued, and will do little, if anything, to protect the copyrights against continuing infringement.

SMALL LARKIN & KIDDE

The Honorable Carlos J. Moorhead
February 15, 1996
Page 5

2. An actual knowledge standard would slow the removal of copyright infringing materials from the Internet

Even more importantly, since copyrighted material can be disseminated globally in an instant, the speedy removal of copyright infringing material from an online network is essential to the protection of the copyright against further infringement. The actual knowledge standard, however, would significantly slow the removal of infringing material from an online network.

Currently, the fear of direct, contributory or vicarious liability sometimes prompts access providers to remove material immediately upon receiving notice that it is claimed to infringe copyrights. Under an actual knowledge standard, an access provider will have no liability, and thus no incentive for removing materials, until a court has ordered the removal. Securing a court order or temporary restraining order can take from a few days to one or two weeks. Slowing the removal of copyright infringing material from online networks to this extent, with an actual knowledge standard, will significantly weaken the protection of copyrights in the online world.

3. Imposing a requirement for a court order will burden the courts unnecessarily

The proposal that online providers should be responsible for action only after receiving a court order would create a new category of litigation, and thereby would impose a further burden on already overloaded courts. In addition, this overload could create further delays for copyright owners seeking relief from online infringement. This is another reason for avoiding this approach.

II. Contrary to the claims of Mr. Heaton, copyright holders cannot presently prevent the online infringement of their copyrights

In response to a question from Congressman Bono, Mr. Heaton stated that copyright holders can protect their copyrights online through (1) encryption, (2) technology yet to be created, and (3) vigorous enforcement against the original infringers. I believe Mr. Heaton is wrong in this respect. In fact, no effective protection presently exists, and copyright holders are practically powerless to protect their copyrights against unauthorized uploading onto the Internet.

SMALL LARKIN & KIDDE

The Honorable Carlos J. Moorhead
February 15, 1996
Page 6

A. Encryption provides only limited protection to copyrighted material

Mr. Heaton stated that copyright holders can protect their copyrighted material from online infringement by encrypting the material. This applies only to materials that copyright holders voluntarily place online, and does not apply to the great majority of copyrighted works in other media. Further, when material is placed online by another individual, the copyright holder cannot ensure that the copyrighted material is uploaded in encrypted format, nor does encryption protect against anonymous online infringement.

B. No technology exists, or is on the horizon, which would allow copyright holders to protect all of their copyrights online

Mr. Heaton expressed his belief that the threat to the copyrights would prompt the development of technologies that would protect copyrights against online copyright infringement. Though it is indeed impossible to predict what technology may be developed in the future, such technology does not presently exist or has only limited effectiveness.

No technologies have been developed to provide protection to copyrighted print material against online infringement, nor are such technologies on the horizon. There is simply no way for a copyright holder to protect against someone's scanning into a computer a hard copy of a copyrighted novel.

Finally, placing reliance on the development of technologies not yet available to protect copyrights online does nothing to protect copyrights until such technologies emerge. This simply is not a realistic approach to an immediate problem.

C. Actions brought against the original uploaders of copyright infringing materials will not provide sufficiently effective online protection for copyrighted material

Mr. Heaton proposed that copyright holders should vigorously pursue suits against those who have infringed copyrights by uploading copyrighted material. Furthermore, Mr. Heaton stated that access providers are more than willing to help copyright holders identify the original uploaders. He suggests that such

SMALL LARKIN & KIDDÉ

The Honorable Carlos J. Moorhead
February 15, 1996
Page 7

vigorous pursuit of the original uploaders will effectively protect copyrighted materials against online infringement.

I agree that copyright holders should vigorously pursue the original infringers of their copyrighted material. But, I also note that, in the online world, the vigorous prosecution of original infringers has many limitations, and thus cannot provide completely effective protection to copyrighted materials.

Copyrighted material may be uploaded anonymously or under false names. Anyone can place materials online through remailers that remove the identity of the poster from the material. In such cases, even an access provider cannot help the copyright holder identify the original poster of the material. Furthermore, many remailers are located in other countries, such as the Netherlands, so a U.S. court often cannot compel the remailer to divulge the identity of the uploader. Therefore, where material is being posted anonymously through a remailer, the copyright holder cannot effectively reach the uploader.

If such vigorous enforcement against initial uploaders is the only solution on which copyright owners can rely, it will be an extremely expensive, and essentially futile, exercise. For example, an infringing work can be uploaded by one individual onto a Usenet newsgroup, and downloaded by one or more other individuals from the Usenet newsgroup, either in the same jurisdiction or in another, while the copyright owner is taking action against the uploader. Before any effective relief can be obtained against the uploader, the downloaded material can be widely circulated by others, even including postings to foreign web sites providing international access to the materials.

This scenario is simple and unremarkable by Internet standards, and demonstrates the inability of a copyright holder to adequately protect copyrights through vigorous enforcement action against the original uploader. Further, the litigation costs of pursuing all of the uploaders can be prohibitive.

- D. **Mr. Heaton misses the most simple and effective way to provide added protection to copyrights online: to require access providers to remove material upon notice that the material infringes a copyright**

In my view, each of the methods by which Mr. Heaton proposes that copyright holders protect their copyrights is seriously flawed because they are misdirected. The focus should not be on existing, largely ineffective, ways in which copyright

SMALL LARKIN & KIDDE

The Honorable Carlos J. Moorhead
February 15, 1996
Page 8

holders can attempt to protect their copyrights online--greatly improved, though not total, online copyright protection can be provided by imposing on access providers the duty to remove copyright-infringing material. I do not presently propose that this should be a specific statutory duty to remove all known copyright infringements, nor that access providers be given a duty to remove all material that they believe may possibly infringe copyrights. But I do believe that the access providers should be required to remove material whenever they receive notice from a copyright holder that the material infringes a copyright.

III. The creation of a reasonable duty on behalf of access providers to remove material upon notice from a copyright owner that the material infringes a copyright should not result in a flood of frivolous claims of infringement

In response to a question from Congresswoman Schroeder, Mr. Heaton claimed that access providers will be inundated by claims of copyright infringement if they have the duty to remove material upon notice that the material infringes a copyright. I believe that this claim is far-fetched, and that this potential problem can be easily prevented through several mechanisms.

As suggested by Mr. Cook, Congress could require a copyright holder to post a bond when giving notice to an access provider that copyright infringing material is posted on the network. A bonding requirement will have the effect of discouraging frivolous claims, but it also could discourage copyright holders of limited means, including most individual authors, from bringing claims.

In my opinion Rule 11 of the Federal Rules of Civil Procedure provides a better model for mechanism to discourage frivolous or harassing claims of copyright infringement. If the copyright holder fails to pursue a case against the original uploader, or harasses an access provider with frivolous notices of copyright infringement, the access provider should be able to seek Rule 11-type sanctions against the copyright holder.

Finally, the requirements for filing claims with an access provider can be made sufficiently rigorous so as to discourage the frivolous or harassing filing of claims. A copy of the copyright registration, verified by the copyright owner, accompanied by a verified statement that the uploaded materials are believed to infringe, can be required.

SMALL LARKIN & KIDDE

The Honorable Carlos J. Moorhead

February 15, 1996

Page 9

With the proposed mechanisms, frivolous claims can be prevented. If these mechanisms are not wholly satisfactory, I am confident that Congress is capable of constructing other suitable mechanisms to prevent frivolous notices to access providers. In any event, I believe that the existence of these mechanisms demonstrates that access providers can be protected against a flood of frivolous claims.

- IV. **The creation of a duty to remove copyright infringing materials does not mean that access providers will have to determine whether copyright infringements have occurred.**

In his testimony, Mr. Heaton took issue with the idea that access providers should have to make determinations whether copyright infringements have occurred on their systems. Mr. Heaton emphatically maintained that access providers are not equipped to determine whether a copyright infringement has occurred.

I believe Mr. Heaton is right, but that this is not a real issue. Access providers can be given a reasonable duty to remove infringing material without being required to make a judicial determination that copyright infringement has occurred. Access providers can be given the duty to remove material upon notice from a copyright holder that the materials infringe a copyright. The role of the access provider would simply be, as Mr. Cook expressed it, to put the challenged material in a "penalty box" pending resolution of the case against the original infringer, or pending a complaint from the original poster. In other words, the courts still will make the ultimate determination on the existence of copyright infringement. The access provider will simply be required to remove the challenged material upon being given some prescribed level of notice by the challenging copyright holder.

- V. **The creation of a reasonable duty on behalf of the access provider to remove copyright infringing material from its network does not unjustifiably shift the burden of protecting copyrights from copyright holder to access provider**

Mr. Heaton repeatedly stated that access providers should not have the burden of protecting copyrights online. He noted that current law gives copyright holders the burden to protect their copyrights, and they should continue to have this burden. I do not believe that either H.R. 2441 or the creation of a reasonable duty to remove infringing materials shifts to access providers the burden of protecting copyrights against online infringement.

SMALL LARKIN & KIDDÉ

The Honorable Carlos J. Moorhead
February 15, 1996
Page 10

Under both H.R. 2441 and a reasonable duty to remove, copyright holders continue to have the burden of identifying online infringements of their copyrighted works. Copyright holders still have the burden of bringing those infringements to the attention of the access provider in order to get the access provider to remove the infringing material. Copyright holders also still have the burden of pursuing a case against the uploader of the infringing material.

The proposed duty to remove infringing material upon notice does not give access providers a new burden. This burden is one that access providers already have under current law, upon the receipt of a court order and perhaps under the law as to contribution infringement. It is likewise a burden that copyright holders have never had. Therefore, though a reasonable duty to remove upon notice will mean that the specific burden upon access providers increases to a degree, it does not represent a shifting of the burden from copyright holder to access provider.

VI. Under both H.R. 2441 and the creation of a reasonable duty to remove, copyright holders will still have powerful incentives to press suits against the original infringers

Mr. Heaton stated that the burden-shifting he perceives with deprive copyright holders of the incentive to pursue suits against the original infringers. I believe he is incorrect in this.

Unless copyright holders press suits against the original uploaders of copyright infringing works, the original infringers will be able to continue to upload copyright infringing works. Therefore, unless the copyright holder presses suit, the problem will continue and probably grow. This provides a powerful incentive to press a suit against the original infringer. In addition, the desire to recover damages will continue to provide copyright holders with the most powerful incentive to press suits against the original infringers.

Though H.R. 2441 confirms that an access provider infringes a copyright by unintentionally and unknowingly transmitting a copyright infringing work, a court may find that the access provider is an innocent infringer and thus is not liable for more than nominal damages, at most. The proposed reasonable duty to remove will not expose an access provider to increased liability for damages caused prior to notification. Further, if the access provider removes the copyright infringing material upon notice, there will be no damages following notification. A copyright

SMALL LARKIN & KIDDE

The Honorable Carlos J. Moorhead
February 15, 1996
Page 11

holder therefore is unlikely to recover from an access provider for damages incurred by online copyright infringement.

Since the copyright holder is not likely to recover damages for online copyright infringement from the access provider, the copyright holder will continue to have a powerful incentive to bring suit against the original infringer.

VII. Conclusion

In conclusion, it is my firm opinion that the imposition of a specific duty to remove infringing material, upon notice of the infringement, to the access provider, will significantly improve the protection of copyrights in this country and, ultimately, should lead other countries to provide similar protection. Accordingly, this duty should be included in the law.

Respectfully submitted,



Thomas M. Small

TMS/vi



February 15, 1996

The Honorable Carlos J. Moorhead
Chairman
Subcommittee on Courts and Intellectual Property
Committee on the Judiciary
United States House of Representatives
B-351A Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Chairman:

On behalf of the Association of National Advertisers, Inc. (ANA), I am writing to express our concern about two issues regarding the protection of intellectual property rights under the National Information Infrastructure (NII). The first is the serious problem of Internet domain name piracy, whereby third parties are registering the well-known names and trademarks of major national companies. The second issue is the problem of inappropriate alteration of copyrighted materials on the NII by third parties.

We commend you for introducing H.R. 2441, the "NII Copyright Protection Act of 1995," and for conducting hearings on this important measure. While the issues addressed by this legislation are certainly very important, we are still in the process of talking to our member companies in order to be able to provide a definitive position on H.R.2441. **However, we would urge the Subcommittee to also focus on the very important trademark issues that have been raised through the ongoing development of the NII. As the bill proceeds to markup in the Subcommittee, we strongly urge you to provide adequate protection for trademark rights on the NII.** We request that these comments be included in the official hearing record of this legislation.

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Richard A. Garvey, *LEGO Systems, Inc.*
David B. Green, *McDonald's Corp.*
Philip Guarascio, *General Motors Corp.*
Carl E. Gustin, Jr., *Eastman Kodak Co.*
Richard S. Heister, *Kraft Foods*
John E. Jacob, *Anheuser-Busch Co.'s*
Robert Klugman, *Coors Brewing Co.*
Abby F. Kuhnsstamm, *IBM Corp.*
L. Ross Love, *Procter & Gamble Co.*
Cary S. Moss, *Campbell Soup Co.*
John D. Morris, *Mars Incorporated*
Michael Nadelberg, *Gillette Co.*
Mary Ellen Payne, *Bell Atlantic*
David G. Ropes, *Reebok International Ltd.*
John E. Rubaas, *United Airlines*
Janet L. Soderstrom, *VISA U.S.A.*
John J. Sarsen, Jr., *ANA*
Arthur Shapiro, *The House of Seagram*
Michael Soranzo, Jr., *Wm. Warner-Lambert Co.*
Jeanne M. Sowa, *Reef Industry Council*
Peter J. Spengler, *Brustel-Myers Squibb Co.*
James D. Sporn, *AT&T*
Allen H. Stett, *Nestle U.S.A., Inc.*
Nancy J. Wiese, *Xerox Corp.*

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The Honorable Carlos J. Moorhead
 February 15, 1996
 Page two

ANA's Interest in These Issues is Substantial

The Association of National Advertisers, Inc. (ANA) is the industry's oldest trade association and the only organization exclusively dedicated to serving the interests of corporations that advertise regionally and nationally. The Association's membership is a cross-section of American industry, consisting of manufacturers, retailers and service providers. Representing more than 5,300 separate advertising entities, these member companies market a kaleidoscopic array of products and services to consumers and other businesses. Every one of our members have very major copyright and trademark interests in the marketing messages they provide to the public.

The Role of Advertising on the NII

A number of ANA members are actively engaged in a variety of online marketing activities. While the Internet is still not a major selling vehicle for national advertisers, the advertiser's role is growing. It has been estimated that advertisers spent \$44 million on advertising on the World Wide Web in 1995. An additional \$12 million was spent for ads on commercial online services. While these numbers are very small compared to the more than \$60 billion spent on national television and print media, growth projections for Internet advertising are impressive. A major consulting firm recently projected that online ad spending will reach \$343 million this year, and that it will top \$1 billion in 1997 and reach the \$5 billion mark by the year 2000. Clearly, advertising is on the Internet to stay and holds the promise of being a significant source of funding for new media systems and content.

The Honorable Carlos J. Moorhead
February 15, 1996
Page three

The NII presents tremendous benefits for both advertisers and consumers. At relatively little cost, companies can have instant access to the global economy, yet also maintain the flexibility to target consumers individually. Interactive media will increase consumer sovereignty and control over the advertising, entertainment and educational information they receive. Consumers will be able to get more of what they want and avoid what they don't want.

However, the "frontier" environment which currently pervades the world of cyberspace exposes companies to a tremendous risk of piracy and other unauthorized use of their valuable assets. More and more companies are finding that it is easy for others to break intellectual property law on the Internet and difficult for the companies to enforce the laws. Unless the various intellectual property interests of national and international companies are fully protected, the NII will never reach its full potential. We believe it is essential that the Congress update the various intellectual property laws to ensure that these valuable property interests are fully protected in the new world of cyberspace.

Domain Name Piracy is a Serious Problem

The problem of domain name piracy was discussed in *Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights*; September 1995 (hereinafter cited as "the White Paper"). The Task Force described several cases where trademark owners suddenly discovered that third parties had registered Internet domain names that are identical to their trademarks. For example, a former employee of the MTV Cable network had registered an Internet domain name of "mtv.com." A lawsuit by the network challenging the individual with trademark infringement and unfair competition is pending in the courts.

The Honorable Carlos J. Moorhead
 February 15, 1996
 Page four

In another widely reported case, Princeton Review, Inc., a marketer of courses and materials to prepare students for standardized tests, had registered an Internet domain name ("kaplan.com") of one of its major competitors, the Kaplan Educational Centers. According to press accounts, officials of Princeton Review even publicly acknowledged that they had registered the "kaplan.com" domain name to mock and annoy their major competitor. An arbitration panel ruled in 1994 that Princeton had no legal right to use the "kaplan.com" domain name and ordered that Princeton relinquish the site name to Kaplan.

The "White Paper" provides an excellent description of the process that is followed when a company or individual seeks access to the full range of Internet products and services: "To send and receive information on the Internet, various organizations connected to the Internet must register their domains, networks and autonomous systems numbers with Network Solutions, part of the Internet National Information Center (InterNIC). The InterNIC performs this function under a cooperative agreement with the National Science Foundation. Within the context of a prescribed format, the Internet user may register any domain name as long as the identical domain name has not been previously registered with the InterNIC by another party. According to the InterNIC, there is no state or Federal statutory authority under which the InterNIC performs this registration function. The InterNIC does not conduct an examination of trademark or other records before registering a domain name." "White Paper" at 172-173.

The primary self-regulatory body of the business community, the Council of Better Business Bureaus, faced the problem of domain name piracy. When that group sought to establish a website to provide information on a variety of consumer protection issues, they learned that the domain name of "bbb.org" had been registered by another individual. The CBBB eventually obtained ownership of the site name through litigation.

The Honorable Carlos J. Moorhead
February 15, 1996
Page five

A number of major national advertisers have also experienced the problem of domain name piracy. As they attempted to register their corporate name, or the name of specific branded products they manufacture, they were informed by InterNIC that those domain names had already been registered by some third party.

In some cases, the third party was a business competitor. In some cases, the third party was a satisfied customer of the company who simply wanted to converse with other satisfied customers over the Internet. Some third parties are unhappy customers who saw an opportunity for mischief, or simply "entrepreneurs" who saw a chance to make some money by selling an Internet domain name to the trademark owner.

Whatever the identity or motive of the third party, in each case, they have violated the intellectual property rights of the trademark owner. Trademarks are extremely valuable corporate assets. Companies spend many millions of dollars building consumer identification and loyalty through trademarks and brand names. The owner of a trademark is entitled to the exclusive use of that mark and to prevent unauthorized third parties from using the trademark or a confusingly similar mark. Any inappropriate use of the mark, whether malicious or innocent, can seriously dilute the value of the trademark.

As H.R. 2441 proceeds to markup in the Subcommittee, we strongly urge you to amend the bill to specifically make clear that trademarks are fully protected on the NII.

The Honorable Carlos J. Moorhead
February 15, 1996
Page six

Copyrighted Material and Trademarks are At Risk on the NII

We are also concerned about inappropriate alteration or use of trademarks and copyrighted material by third parties. At the present time, there is essentially no effective security for intellectual property rights on the Internet. Copyrighted and trademarked material which is provided by companies can be accessed by anyone and indiscriminately downloaded. Once downloaded, those materials can be manipulated and altered in ways very damaging to the property owner, and with the click of a few keys, made available to millions around the world.

According to *Advertising Age*, a major toy manufacturer recently discovered that *Urban Desires*, a sexually oriented Web magazine (<http://desires.com>), contained altered, inappropriate pictures of the image and trademark of one of its most popular toys. Entertainment companies have discovered that pirated, altered copies of their cartoons, games and videos are available in various forms online.

Since online advertising messages themselves can be easily manipulated, companies face a serious risk that their advertising could be altered and retransmitted to deceive potential consumers. For example, several national advertisers have discovered that without their consent or knowledge, their corporate logo has been placed on a third party's web site to indicate "support" for the activities and information available at that site.

As a result of these serious problems, companies are working much more proactively to protect their intellectual property interests. They are placing trademark and copyright information in all of their online materials. They routinely "surf" the Internet to be certain that others are not improperly using their trademarks, trade names or logos. They are taking direct action against violators, through litigation when necessary.

The Honorable Carlos J. Moorhead

February 15, 1996

Page seven

Private industry is also working to develop various technologies to more fully protect their copyright interests. These technologies include digital signatures, encryption and various access controls. We strongly support Section 4 of H.R. 2441, which imposes civil and criminal penalties for those who attempt to circumvent such copyright protection systems.

Finally, it is important to note that intellectual property rights must be adequately protected at the international level, as well as the national level. The NII has already become the Global Information Infrastructure and companies face similar piracy risks at the international level. A company which has registered its trade name with InterNIC may nevertheless find that its domain name has been registered in another country by a foreign pirate. For that reason, we believe that Congress should develop mechanisms to work with international bodies, such as the World Intellectual Property Organization, to provide solutions to these growing problems.

Conclusion

As the Information Infrastructure Task Force concluded last year: "unless the framework for legitimate commerce is preserved and adequate protection for copyrighted works is ensured, the vast communications network will not reach its full potential as a true, global marketplace. Copyright protection is not an obstacle in the way of the success of the NII; it is an essential component." "White Paper" at page 16.

We appreciate the opportunity to provide these comments. As H.R. 2441 proceeds to markup in the Subcommittee, we urge you to provide full protection for both copyright and trademark interests on the NII.

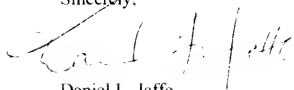
The Honorable Carlos J. Moorhead
February 15, 1996
Page eight

The development of the NII and the GII is of critical interest to ANA and all of our member companies. In 1994, we joined with our sister association, the American Association of Advertising Agencies (AAAA), to form CASIE, the Coalition for Advertising Supported Information and Entertainment. The goal of CASIE is to create an environment where consumers have the broadest possible array of high-quality media options at the lowest possible cost. We believe that advertising revenue must continue to be a key funding source for information and entertainment in the evolving world of media.

We would appreciate the opportunity to work with you and other members of the Congress to craft legislation which will enable the NII and the GII to develop to their fullest potential, while protecting the intellectual property rights of companies that conduct business in cyberspace.

Thank you for your consideration of our views.

Sincerely,

A handwritten signature in dark ink, appearing to read "Daniel L. Jaffe", written over a horizontal line.

Daniel L. Jaffe

c: John J. Sarsen, Jr.



THE LIBRARIAN OF CONGRESS
WASHINGTON, D.C. 20540-1000

February 15, 1996

Dear Mr. Chairman:

Last fall, I was most grateful when your Subcommittee on Courts and Intellectual Property led off the hearings on H.R. 2441 with testimony from Marybeth Peters, the Register of Copyrights. I am also appreciative that you have asked the Register to help resolve the issue of a possible exemption for libraries within the framework of copyright term extension. I am writing today to offer the services of the Library and the Copyright Office to the Subcommittee during its consideration of H.R. 2441. The complexity of these issues is manifest, as is the commitment and interest from a broad array of affected parties to work with your subcommittee and with the Senate to craft the best possible legislation.

As Librarian of Congress, I am keenly aware of the copyright issues raised by new digital technology. The creation of the National Digital Library -- and particularly the inclusion of 20th century materials in all media -- is important for the educational needs of the nation and a critical priority for the Library of Congress. The resolution both of copyright term extension and revisions in the copyright law for the digital environment will affect how we and libraries across the country make resources necessary for education and productivity widely available to citizens, researchers, and students.

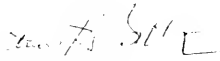
The Library and the Copyright Office stand ready to assist the Subcommittee in any way possible to accommodate the desire expressed by many interested parties to craft solutions to some of the concerns raised with the present bill. As the Register indicated in her testimony to the Subcommittee in November, while supporting the provisions of H.R. 2441, the "areas left untouched may be equally as significant as the proposed amendments." A number of representatives of non-profit educational institutions and commercial information distributors have expressed deep concerns to me about the implications and possibly unintended consequences of the legislation. They believe it is essential (and I suspect that it would be beneficial) for the statute to clarify areas of concern rather than to leave these questions to lengthy, expensive, and often contradictory court proceedings to resolve.

You and your predecessors have turned to the Library and the Copyright Office many times in the past to provide forums where competing interests may meet and resolve differences in the best interests of all. The Library can contribute to the desire of many groups for further work and resolution on the issues of fair use, the concerns of libraries and others with respect to on-line liability, first sale or other elements of H.R. 2441.

The Library and the Copyright Office may be of particular service to the Congress if the Conference on Fair Use is concluded without agreement on basic guidelines. In that event, I would offer any and all assistance to your Subcommittee for all parties to work with the Register and her staff in a more formal and focussed discussion that would yield results. The fair use doctrine plays a critical role in the balance between the rights of copyright owners and the interests of the users of copyrighted works. Fair use, in my view, must continue to play this critical role in the digital environment. Other issues that might benefit from extended analysis and discussion might similarly be referred to the Copyright Office, as you have done already this Congress.

Thank you for your consideration of these views. We look forward to assisting the Subcommittee in any way possible and offer heartfelt appreciation for your commitment to bringing the copyright law into the 21st century.

Sincerely,



James H. Billington
The Librarian of Congress

The Honorable
Carlos J. Moorhead
Chairman
Subcommittee on Courts and Intellectual Property
B351A Rayburn
U.S. House of Representatives
Washington, DC 20515



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Telephone: (202) 828-7412

James E. Lewin, Jr.
Vice President
Government Affairs

February 21, 1996

The Honorable Carlos J. Moorhead
Chairman
Committee on the Judiciary
Subcommittee on Courts and Intellectual Property
B351-A Rayburn House Office Building
Washington, D.C. 20515

Dear Congressman Moorhead:

I'd like to thank you for the opportunity to provide Sprint's views on HR 2441, the "NII Copyright Protection Act of 1995." Sprint is a global telecommunications company, providing long distance, local and wireless telecommunications services, and is the world's largest carrier of Internet traffic.

As a technology-driven company, Sprint understands the importance our laws place on protecting intellectual property rights. We therefore appreciate this Committee's interest in ensuring that copyright owners' rights are not compromised by the unauthorized appearance of those materials on new electronic media.

At the same time, Sprint has served as a telecommunications carrier for the past 97 years, and has a strong perspective on the carefully defined role a common carrier plays in providing communications services.

Sprint supports the extension of current interpretations of copyright law, such as the Netcom decision, which recognize that service provider liability may only attach in very limited circumstances. However, we share the concern expressed in the testimony of the Commercial Internet Exchange Association ("CIX") that the bill may go well beyond those current interpretations, by imposing either direct or vicarious liability upon service or access providers, for content they did not create and could not control.

The Honorable Carlos J. Moorhead
 February 21, 1996
 Page 2

Additionally, we believe that where a party is functioning solely as an access provider, the bill should be modified to recognize that the provider is acting as a "common carrier" under the Communications Act, with the attendant responsibilities and protections offered by that statute. Just as telegraph and telephone systems have served as the nation's communication pipelines through the 19th and 20th centuries, computer networks will serve as a critical communication pipeline through the 21st century. The law has long recognized that the common carrier -- the pipeline operator -- should not serve as the arbiter of content carried on its network. Its role is to make available, without discrimination, a "... rapid, efficient nation-wide, and world-wide wire and radio communication service. . . ." 47 U.S.C. sec. 151. The courts have recognized that if such companies

are to handle such a volume of business expeditiously, it is obvious that their agents cannot spend much time pondering the contents of the messages. . . . The effect of putting such a burden upon the telegraph companies could only result in delayed transmission of, and in some cases refusal to transmit, messages which the courts after protracted litigation might ultimately determine to have been properly offered for transmission and which the sender was entitled to have dispatched promptly. *O'Brien v. Western Union Telegraph Co.*, 113 F.2d 539, 542 (1st Cir. 1940).

Another Court has described "the primary sine qua non of common carrier status" as "the undertaking 'to carry for all people indifferently'" and that "the system be such that customers 'transmit intelligence of their own design and choosing.'" *National Ass'n of Regulatory Utility Commissioners v. FCC*, 533 F.2d 601, 608-09 (D.C. Cir. 1976).

Thus, the FCC has held that while it is unlawful for carriers to carry obscene communications, it is not for the carrier to determine unilaterally whether or not particular subject matter is obscene. *Notice of Inquiry*, 48 Fed. Reg. 43,348 (1983). Likewise, the FCC has emphasized that when a carrier is asked to deny a customer the use of its facilities, based on alleged unlawful Customer conduct, the carrier should seek a ruling on the illegality prior to unilaterally refusing service. *Humane Society v. Western Union International, Inc.*, 30 FCC 2d 711, 713 (1971). *In the Matter of Enforcement of Prohibitions Against*

The Honorable Carlos J. Moorhead
February 21, 1996
Page 3

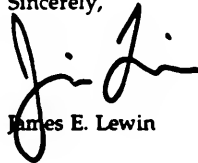
the Use of Common Carriers For the Transmission of Obscene Materials, 2 FCC Rcd 2819, 62 Rad. Reg. 2d (P&F) 1517 (1987).

A common carrier is not a federal judge nor should it be put in a position of policing the content of communications over its network. Under current law, it is required to provide service without discrimination, and is neither qualified nor expected to render judgment on whether communications on its facilities constitute obscenity, or illegal gambling, or infringements under the Copyright Act. If a carrier is presented with evidence that its Customer has acted unlawfully – such as a court decision, or notification from a law enforcement authority – it may properly discontinue service. See, e.g., **Palermo v. Bell Telephone Company of Pennsylvania**, 415 F.2d 298 (3d Cir. 1969). But absent actual notice that activity carried on its network is in fact unlawful, the carrier is obliged to provide service.

As a common carrier, an access provider's primary responsibility is to perform its function as a communications pipeline – it cannot and should not be expected to police its network for copyright infringements and to pass judgment on copyright disputes.

Again, thank you for the opportunity to provide these comments. Sprint stands ready to assist you and your colleagues in this effort.

Sincerely,



James E. Lewin

copies to: Members of the House Committee on the Judiciary
Alan Coffey, Jr.
Thomas E. Mooney
Mitchell Glazier
Julian Epstein
Perry Apelbaum
Betty Wheeler

WRITTEN STATEMENT OF

PETE HIGGINS

GROUP VICE PRESIDENT

APPLICATIONS AND CONTENT GROUP

MICROSOFT CORPORATION

ONE MICROSOFT WAY
REDMOND, WA 98052-6399
(206) 882-8080

**THE IMPORTANCE OF
INTELLECTUAL PROPERTY PROTECTION
ON THE INTERNET**

BEFORE THE
SUBCOMMITTEE ON COURTS AND INTELLECTUAL PROPERTY
OF THE HOUSE COMMITTEE ON THE JUDICIARY
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, D.C.

FEBRUARY 7, 1996

INTRODUCTION

Mr. Chairman, Members of the Subcommittee, my name is Pete Higgins. I am Group Vice President of the Applications and Content Group for the Microsoft Corporation. We greatly appreciate the opportunity to share with you our vision of the rapidly growing and changing Internet and the need to protect intellectual property rights to ensure its continued development.

Over the past twenty years, Microsoft has sought to empower personal computer ("PC") users by developing software that makes it easier for them to use their PCs at home and at work for an increasing number of purposes. In pursuit of this goal, Microsoft has grown, changed, adapted and reinvented itself continuously – today we employ nearly 19,000 people, approximately 9,000 of which are located at our headquarters in Redmond, Washington.

Microsoft's software products run the gamut from operating systems¹, to applications² software such as word processing and spreadsheet programs, to software development tools and programming language products that help people develop and write creative software. Over the past few years, we have entered the consumer market by providing interactive CD-ROMs in such areas as reference (*Bookshelf* and *Encarta*) and home entertainment (*Golf* and *Flight Simulator*). Microsoft also manufactures hardware peripherals, including mice and keyboards.

Microsoft also recently launched an Internet online service, The Microsoft Network ("MSN"), which offers Internet access, premium content, e-mail and a variety of educational and entertaining forums. In addition to the online service, which is available to subscribers, MSN

¹ An operating system is software that acts as a computer's "central nervous system" and is responsible for allocating computer memory, scheduling the execution of basic functions and controlling the flow of information among various components of the computer system.

also is a site on the World Wide Web, where it is one of the most popular starting points for locating and accessing information in the Internet.

Despite our success in these areas, Microsoft must continue to evolve, innovate and bring value to users in an Internet enabled marketplace. We believe that the Internet will affect all of our products and services. Therefore, we have made it a key mission for all of our divisions to emphasize facilitating access to and use of the Internet. This already has borne fruit. We have added certain Internet enhancements to our existing client and server products³, development tools, applications, and content titles. Also, when we recently released Windows 95 (the latest update to the Windows operating environment) we included many features and capabilities that will help the PC fulfill its newest role as a platform for the Internet.

We are very excited about the opportunities offered by the Internet, and we are working hard with a variety of partners in a variety of industries to help consumers and businesses take advantage of the Internet's full potential.

² An application is software that performs complex tasks and lets the user create and modify documents. Commonly used applications are databases, graphics programs, spreadsheets and word processing.

³ A client-server network is a computer network made up of a "server," usually a PC with a lot of memory, that stores information and coordinates the activities of multiple "clients," usually individual PCs, who use the system to access information.

THE INTERNET TODAY

The Internet was born in 1969 as a specialized communications tool among academic and government researchers; today, millions of people – anywhere from 10 million to 24 million, according to recent studies⁴ are online. The PC revolution was made possible by the prevalence of cheap, powerful microprocessors. The Internet revolution is riding the wave of cheap, powerful communications. The 2400 bps modems popular a few years ago have given way to 14,400 bps and 28,800 bps models, with lower prices. About 90 percent of computers are now sold with modems, up from 70 percent a year ago, according to IntelliQuest.⁵

Along with the communications revolution, the move to lower-cost, fully graphical PCs has helped to bring millions of individuals to the Internet. The focus on a few compelling applications – including e-mail, file transfers and the World Wide Web – has attracted and retained millions of users, as well.

Microsoft believes that the Internet has reached critical market mass and is poised for faster growth. The current market is large and dynamic. It will continue to attract visionaries to address and overcome the Internet's limitations. Communications bandwidth will expand to mid-band and, ultimately, broadband rates, allowing rich interactivity with low-cost support for audio, video and other multimedia technologies. A range of devices – including phones, personal data assistants and interactive TVs – will attach to the Internet for various uses, with the powerful, low-cost PC remaining the primary connection. Microsoft currently is investing in and exploring this broadband future through research and development.

⁴ Nielsen Media Research in Wall Street Journal, October 30, 1995; Time, November 13, 1995.

As the Internet continues to grow and improve, Americans will be able to use it to find new ways to work, learn and play. Internet users will be able to:

- Engage in electronic commerce through online purchasing and banking – no teller or salesclerk needed for any service.

- Use interactive services for everything from shopping for groceries to playing multiplayer games and viewing a particular movie.

- Receive a diagnosis and, if necessary, medical care or guidance for their medical problems online. Their doctors will have online access to complete medical histories, multiple reference sources, shared research groups, and chat groups on specific medical topics.

- Register to vote, obtain social insurance payments, file tax returns, renew passports, and obtain copies of birth certificates, all without leaving home.

- Explore areas of educational and intellectual interest in greater depth at their own pace and to connect with other people of all ages interested in the same subjects. They be able to take courses at remote learning centers and to have access to up-to-date electronic text books, interactive learning tools, scientific experiments, and simulated field trips around the globe.

- Access the same information and obtain the same online services whether they are located on a farm in Wisconsin or in an apartment in Chicago – i.e., someone located in Alaska may search the contents of the University of Washington's law library as well as study the nuances of African art at the Metropolitan Museum of Art.

⁵ IntelliQuest in Wall Street Journal, December 26, 1995.

- Enjoy greater leisure time to spend with their families and friends and more flexibility and freedom in their work schedules. They will be able to work from home using telecommunications and information services to send and receive information, access libraries and conduct video conferences.
- Stay close to family and friends, whether they are across town or across the seas.

ROLE OF INDUSTRY

Many innovative companies will help to make the Internet an interesting, productive, fun experience. There are many opportunities for many types of businesses.

This increasing use of the Internet for business, consumer and educational uses is dependent on several factors. Web pages need richer multimedia, 3-D graphics and interactive capabilities. Business applications need greater security, especially for financial transactions. Parents must be able to supervise their children's access to Internet content. Software tools must become more powerful, flexible and easy to use, to attract more content creators and more compelling content. This will not happen, and the Internet will not "be all that it can be," without industry taking an active role in several areas.

Increased Bandwidth is a key requirement for Internet growth. As bandwidth (the number of bits that can pass through a wire or wireless communications channel in a second) gets bigger, more information will be transmitted faster and with better features such as real-time, quality video and 3-D capability. Mid-band technologies, ISDN (Integrated Services Digital Network) and PC cable modems, will allow users to fully exploit interactive and voice applications. Full broadband technologies that provide extremely fast, reliable transmission of

data such as video on demand are also coming, but widespread deployment is still a decade or more away. We applaud Congress for recently passing the historic Telecommunications Act of 1996. We believe that increased competition will encourage all communications providers to provide higher bandwidth at the lower cost.

Improved Privacy and Security through encryption is vital. The Internet will become a vibrant, exciting marketplace with millions of people transacting business online only if Internet users believe their information is both private and secure. Without such reassurances, businesses and consumers alike will not place confidential information such as financial data, medical records, business plans, legal strategies, client lists, and credit and debit card numbers online. Governments should support industry's efforts by allowing strong encryption technology to insure the privacy and security of individuals "traveling" this information superhighway.

Development of Internet Standards and Protocols will permit hardware and software designers to develop products that will interconnect and interoperate with other products over the Internet and empower users to take full advantage of all Internet features. Generally, the market has and will continue to drive these standards and protocols so that they keep up with the rapid pace of technology innovation. Also, when necessary, private standards-setting activities provide a mechanism for developing industry consensus in critical areas. Several private sector-led efforts are already underway such as SET ("Secure Electronic Transactions") – an industry-wide technical standard announced by Microsoft, Visa, Mastercard, Netscape, GTE, and others, for safeguarding payment card purchases on the Internet, and PICS (the "Platform for Internet Content Selection"), which will empower parents and educators worldwide to selectively control online content received through their family and classroom PCs. As all of these standards and

protocols must keep pace with the growth of the Internet, we urge you caution on the part of the government before intervening in this incredibly dynamic and productive process.

Compelling Content, above all, will enable the Internet to reach its full potential. With start-up and distribution costs so low, vast numbers of content providers will enter the market. With increasingly efficient authoring and navigation tools, Internet content will become more interesting and easier to produce and find, and content providers will be able to attract and retain highly targeted market segments more easily. Clearly, this explosion of content will increase consumers' interest in accessing the Internet. This consumer interest will provide the impetus and necessary financial backing for the often massive investments that will be required to update and improve the Internet, especially its communications capability, over the next decade.

GOVERNMENT MUST ENSURE INTELLECTUAL PROPERTY LAWS PROTECT INTERNET CONTENT

Content on the Internet includes many types of intellectual property: videos, musical selections, books, software programs, news wires, travel guides, or virtually any other information that is passed electronically across communication lines. It also is different types of software, such as the software that permits users to browse web pages and to author content.

To encourage content creators to take full advantage of the Internet and to encourage software developers to create the necessary new Internet applications and services, the government must ensure strong protection of intellectual property rights both nationally and internationally. Without this protection, the Internet will not carry the compelling content necessary to drive the further development of the Internet.

Congress is to be congratulated for enacting responsible copyright laws which have propelled the United States into being the world leader in both the entertainment and software industries. Fortunately, these laws have proven to be flexible over the years, as Congress and the courts have evolved the law to accommodate new forms of works.

We believe that the copyright law – with only minor modifications – remains well-suited to protect software and other content in this new digital environment. Therefore, we support the approach of “The National Information Infrastructure Copyright Protection Act of 1995” (H.R. 2441). Specifically, Microsoft supports clarifying that the copyright owner’s exclusive distribution right includes the transmission of digital works. We also are hopeful that content creators and online service providers will reach an agreement regarding the liability of service providers for copyright infringement occurring on line.

CONCLUSION

Congress must reaffirm the importance of ensuring copyright protection in a digital environment. As a software company, we operate in the digital environment and have relied on copyright as one of the few methods of preventing others from the unauthorized making and selling of thousands or even millions of copies of our programs. This intellectual property protection has been critical to the success of our industry and provides the foundation from which we combat world-wide piracy. Copyright law has helped American companies maintain their leadership positions, even in foreign markets.

The Business Software Alliance, an organization in which we actively participate, is testifying before you today and submitting written comments regarding the details of “The

National Information Infrastructure Copyright Protection Act of 1995” (H.R. 2441). As a business person, I can only emphasize that government must play an important role in the development of the Internet by carefully evaluating and adapting current copyright law to clarify its impact on works developed, reproduced and distributed in a digital environment. Microsoft looks forward to working with you as this process moves forward.

STATEMENT OF THE NATIONAL FEDERATION OF THE BLIND
BEFORE THE SUBCOMMITTEE ON COURTS AND INTELLECTUAL PROPERTY
COMMITTEE ON THE JUDICIARY
UNITED STATES HOUSE OF REPRESENTATIVES
Washington, D. C.
February 8, 1996

Mr. Chairman, my name is James Gashel. I am the Director of Governmental Affairs for the National Federation of the Blind. My address is 1800 Johnson Street, Baltimore, Maryland 21230; telephone, (410) 659-9314. The National Federation of the Blind appreciates very much the significance of the pending copyright legislation being considered by this Subcommittee, and we thank you for the opportunity to take part in this hearing today.

Before I turn specifically to the copyright bill, I would like to say just a word of introduction about the purpose of the National Federation of the Blind and our particular interest in this legislation. The Federation is a membership organization of blind people. I emphasize the use of the word "of" in our name because blind people themselves have joined together to form the Federation. This is why we are often referred to as the "voice of the nation's blind."

Our interest in publishing and copyright springs from the fact that most of the activities in this area are carried on in the print media. Printed text and graphical or pictorial representations are, by their very nature, not directly usable by blind people. It should be obvious that this presents us with a significant barrier which must be overcome if blind people are to be informed and literate. It is not too much to say that living successfully in our modern society often depends upon being able to communicate ideas and facts both orally and in writing. Therefore, if the blind people of today and tomorrow are going to compete with others on terms of equality--something which we can certainly do--we must have suitable alternatives to standard print.

The amendments to the Copyright Act now before you in the form of H. R. 2441 give recognition to what I am saying. Section 3 of the bill proposes to establish a new limitation on the exclusive rights of copyright owners which would apply to the reproduction and distribution of nondramatic literary works in formats which blind and visually impaired people can use. The provision would allow a nonprofit agency to reproduce and distribute an otherwise copyrighted work without regard to section 106 of Title 17, United States Code.

For example, it would not be a copyright infringement under this section for a nonprofit agency to convert a printed,

published work into Braille without first asking for permission and waiting to receive it. Obviously that would be an advantage. However, the present language of section 3 may well have been crafted without complete knowledge of how the present copyright clearance system works. Nonetheless, the provision as written has done us a great service by kicking off a discussion of how best to get more reading matter more quickly into the hands of blind people while protecting the copyright owners' interests.

The problems and promise of section 3, in its present formulation were described quite succinctly (and quite accurately) in testimony already presented by Mary Beth Peters, Register of Copyrights at the Library of Congress. As she noted in her statement, there is certainly a need for the one-year delay proviso to be re-examined. The limitation should specifically permit reproduction and distribution of digital text; governmental as well as nonprofit agencies should be authorized to use the limitation; and the reader population--blind and visually impaired persons--should be clearly defined.

As it turns out, the issues which Ms. Peters identified were also of concern to the National Federation of the Blind. So, rather than waiting for someone else to act, we decided to take up the challenge. Actually we have been conducting fairly frequent discussions with the publishers, via the Association of American Publishers (AAP). At a meeting of leaders from our respective organizations held on Thursday, January 25 at the headquarters of the National Federation of the Blind in Baltimore, we reached an agreement. This agreement in the form of legislative language is appended to this statement. A memorandum from AAP'S president, Ambassador Nicholas Veliotis, confirming our agreement is also appended.

I should note that Mr. Frank Kurt Cylke, Director of the National Library Service for the Blind and Physically Handicapped of the Library of Congress, was also a participant in the discussions with the publishers. The Library of Congress coordinates the major book production and distribution service through which most blind people obtain reading matter. Mr. Cylke and his staff at the Library have extensive experience and almost daily interaction with book publishers to obtain permission under the present copyright law. Therefore, his involvement along with the publishers was essential.

While the National Federation of the Blind has taken the lead in forging the specifics of an agreement with the AAP, I have been advised that agencies, such as Recording for the Blind and Dyslexic and the American Printing House for the Blind, are fully in accord with the recommended language. It is important to note that these two agencies, along with the Library of Congress, reproduce and distribute much of the reading matter which blind people (both children and adults) receive.

I would like briefly to describe the specific terms of our agreement. It is essentially a proposal to rewrite section 3(b) of H. R. 2441, although it could be advanced on its own as a free-standing bill. In the rewrite, the term "blind and visually impaired" would be changed to "blind and other persons with disabilities." The significance of this change comes in the definitions, which I will shortly discuss.

Subsection (A) of our proposal would allow authorized entities, as we define them later, to reproduce or distribute copies or phonorecords of previously published nondramatic literary works in specialized formats, as later defined, for exclusive use by blind or other persons with disabilities. Under this subsection it would not be an infringement of copyright for the Library of Congress or the American Printing House for the Blind, for example, to proceed immediately with the conversion of a printed book into Braille as soon as they could feasibly arrange to do so. This section would not require copyright permission and would therefore avoid the lengthy waiting time that is often involved.

Subsection B of our proposal contains three definitions which all of us view as critical. The first of these defines "authorized entity" as a nonprofit or governmental agency with a primary mission of serving blind or other persons with disabilities in regard to training, education, or adaptive reading or information access needs. "Specialized formats" are defined as Braille, audio, or digital text which is exclusively for use by blind or other persons with disabilities.

The term "blind or other persons with disabilities" has also been carefully defined. To do this we have followed the recommendation of the Register of Copyrights. As a result, the definition used in our proposal provides a cross-reference to section 135A of Title 2 of the United States Code. This is the definition used for eligibility to receive special reading matter through the Library of Congress program. All libraries and agencies that cooperate with the National Library Service for the Blind and Physically Handicapped of the Library of Congress use the definition from Title 2, section 135A to define the eligible population.

Mr. Cylke has informed us that 500,000 individuals presently receive services through the Library of Congress network of specialized libraries for the blind and physically handicapped. The definition of eligibility in Title 2, section 135A, has existed in its present form for 30 years. Even so, the population of eligible readers remains quite constant. However, it is estimated that as many as three million people in the United States could qualify under the definition now in use for library service.

Those who could and do qualify are individuals who have physical disabilities (mostly blindness) that prevent them from using printed works. In order to qualify in accordance with the existing definition, a person such as myself must be certified by a competent authority as meeting the physical or visual criteria for eligibility. I think it is clear that we--those of us who qualify for service under this definition--are not buyers of print books because we cannot actually use them for the most part.

In fact, I don't recall having ever bought a print book except as a gift for a sighted friend or family member. If I could see, I would very likely be spending considerable sums in bookstores. My personal situation is quite representative. The publishers have recognized this and have therefore agreed that we should have the right to receive editions of published works in specialized formats. The publishers appear to view the use of the existing definition of our eligible population as critical to the agreement we have reached. Since the eligible population is already defined by law, we too are content to use it. As I understand it, all of the affected agencies and groups in our field agree with this.

Subsections C and D of our agreement contain provisions which should help to safeguard the rights of copyright holders. The first of these prohibits republication of a work in a format other than a specialized format and requires that each copy made in a specialized format contain a notice of this prohibition. Also, copies that are made in specialized formats must identify the copyright owner and the date of the original publication. Finally, reproduction or distribution of standardized, secure, or norm-referenced tests or testing material would continue to be a copyright infringement. Laws other than the copyright law already require such tests to be provided in formats that do not discriminate on grounds of blindness or disability.

As I think you can tell from this description, Mr. Chairman, the agreement which the publishers have reached with us is both balanced and fair to everyone concerned. We view this as a "win-win" outcome. Hopefully it can provide the impetus for constructive action in other matters of concern in this bill. Whether that can happen or not, we certainly recommend the provisions I have outlined and urge you to report them promptly to the full committee.

On behalf of the National Federation of the Blind, I thank you for the opportunity to present this testimony. Speaking as someone who would benefit greatly from the recommended changes in the Copyright Act, and speaking on behalf of all blind people, we are really asking for the chance to learn and have timely access to knowledge. Of the 40,000 books that are published in the English language annually, only about 5 percent are made

available to us. The amendments to the Copyright Act will not alone balance the scales, but the changes will certainly help. Therefore, we ask you to move forward with this and thank you for the opportunity to be heard.

AMENDMENT PROPOSED TO H.R. 2441/S. 1284

(a) On Page 2, line 18, strike "visually impaired" and insert in lieu thereof "blind or other persons with disabilities."

(b) On Page 3, line 13, strike "visually impaired" and insert in lieu thereof "blind or other persons with disabilities."

(c) On Page 3, strike the text beginning on line 15 through line 2 on Page 4, and insert the following:

Section 108A. Limitations on exclusive rights: Reproduction for blind or other persons with disabilities

(A) "Notwithstanding the provisions of sections 106 and 710, it is not an infringement of copyright for an authorized entity as defined in this section to reproduce or to distribute copies or phonorecords of a previously published, nondramatic literary work if such copies or phonorecords are reproduced or distributed in specialized formats exclusively for use by blind or other persons with disabilities as defined in this section.

(B) As used in this section, the term--

(1) "authorized entity" means a nonprofit organization or a governmental agency whose primary mission is to provide specialized services relating to training, education, or adaptive reading or information access needs of blind or other persons with disabilities;

(2) "specialized formats" means Braille, audio, or digital text which is exclusively for use by blind or other persons with disabilities; and

(3) "blind or other persons with disabilities" means individuals who are eligible or may qualify in accordance with section 135a of Title 2, United States Code, to receive books and other publications produced in specialized formats.

(C) Copies or phonorecords made under this section--

(1) Shall not be reproduced or distributed in a format other than a specialized format exclusively for use by blind or other persons with disabilities, and any copies or phonorecords made under this section shall bear a notice that any further reproduction or distribution in a format other than a specialized format is an infringement; and

(2) shall include a copyright notice identifying the copyright owner and the date of the original publication.

(D) The provisions of this section shall not apply to standardized, secure, or norm-referenced tests and related testing material.

Association of American Publishers, Inc.

1718 Connecticut Avenue, N.W.
Washington, D.C. 20009-1148
Telephone 202 232-3335
Fax 202 745-0894

Nicholas A. Vellotes
President

Memorandum

January 30, 1996

TO: Dr. Kenneth Jernigan By Fax: 1 page
FROM: Nicholas Vellotes 410-685-5653
RE: Amendment Proposed to H.R. 2441/S. 1284

Thank you for your fax. The language looks perfect. Best wishes.

Paris, le 8 février 1996



Société des Auteurs
et Compositeurs Dramatiques

Paris - Bruxelles - Montréal

Congressman Carlos J. MOORHEAD
Chairman, Subcommittee on Courts
and Intellectual Property
U.S. House of Representatives
2138 Rayburn House Office Building
Washington, D.C. 20515

Re : H.R. 2441, The "NII Copyright
Protection Act of 1995"

Le Vice-Président

Dear Mr Chairman,

Thank you for your letter of January 23rd asking my opinion on the above-mentioned bill. Since it concerns a law that would modify the statutes on Intellectual Property within the United States, I greatly appreciate the fact that you have consulted an author living outside of your country.

Of course, I cannot presume to interfere your internal affairs. I would simply like to underline the absence of certain provisions that will have consequences on an International scale.

The United States Congress, like all of its counterparts throughout the world, absolutely must ensure that its legislation concerning copyright provides complete legal coverage for all rightholders of works which will circulate via the "information superhighway". I think that your bill intends to accomplish this in a rather effective way as concerns economic rights.

On the other hand, I would like to draw to your attention the opinion of my colleagues in the Artists' Rights Foundation of Los Angeles, who would join me in telling you that it is essential, in addition to protecting economic rights, to protect authors' moral rights, at least as they are described in Article 6 bis of the Bern Convention. Indeed, bill HR 2441 does not cover this point at all.

All experts in digital media are in agreement as to the ease with which it will soon be possible to manipulate works. It is the duty of each government to adopt the measures necessary to protect the most legitimate right of any creator : "the right to claim authorship of the work and to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honour or reputation." Does the United States want to remain the only country of the Bern Union to ignore this basic right ?

Authors' rights are human rights. Your country has always been an ardent defender of human rights. The playwrights and directors of the world hope that, in keeping with its tradition, the US Congress will have the perspicacity to ensure that these rights continue to be respected in the digital age.

I am enclosing a document that sums up the pertinent points of the French copyright law. In practice, one consequence of our system is that it creates a de facto association between the author and the producer : litigation in the domain of moral rights is thus virtually non-existent in France.

Respectfully yours,

Jean-Claude CARRIERE

AMERICAN ASSOCIATION OF LAW LIBRARIES

WASHINGTON AFFAIRS REPRESENTATIVE

**Robert L. Oakley***Director of the Law Library & Professor of Law
Georgetown University Law Center*

February 12, 1996

Honorable Carlos J. Moorhead
2346 Rayburn House Office Building
Washington, DC 20515-0527

Dear Congressman Moorhead:

I am pleased to submit to you a copy of the statement on behalf of America's Libraries on H.R. 2441, the National Information Infrastructure Copyright Act of 1995. We request that this statement be included as part of the hearing record on the bill.

The library community recognizes the need to update selected sections of the Act, but it has several concerns about the existing bill. Reflecting those concerns we are pleased to submit recommendations for amendments to both Section 107 and Section 108 of the Act. We believe these proposals will help to maintain the balance between the rights of creators and the rights of information users.

Although these proposals do not solve all the problems we perceive with the legislation, they do go a long way toward meeting the chief concerns of libraries and assuring that information users will have reasonable access to the information they need in the electronic environment. We are also working with other groups, such as the Digital Future Coalition, to develop proposed language to cover other areas of concern.

Thank you very much to your attention to these issues. This is an exceedingly important piece of legislation, and we believe it must be crafted with the utmost care and thought. We hope to be able to work with you to develop legislation that meets the needs and interests of the American people.

Sincerely,

Robert L. Oakley
Washington Affairs Representative
American Association of Law Libraries

(See statement on pages 405 to 425.)



American
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for the Blind

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*Incorporated
in 1921*

**Statement for the Record
of the
American Foundation for the Blind**

submitted to the

**U.S. House of Representatives
Subcommittee on Courts and Intellectual Property
Committee on the Judiciary
104th Congress, Second Session**

February 14, 1996

regarding

**H.R. 2441
NII Copyright Protection Act of 1995**

For Further Information:

**Alan M. Dinsmore
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The American Foundation for the Blind is pleased to support the consensus proposal on exemptions for the visually impaired presented by the Association of American Publishers in their testimony delivered to the Subcommittee on February 8, 1996. This suggested substitute for the present language in Section 108(A) of H.R. 2441 will provide the basis for the timely production and distribution of specialized formats of Braille, audio or digital texts.

The mission of the American Foundation for the Blind is to enable persons who are blind or visually impaired to achieve equality of access and opportunity that will ensure freedom of choice in their lives. AFB accomplishes this mission by taking a national leadership role in the development and implementation of public policy and legislation, informational and educational programs, and quality services.

The effect of the enactment of this new section will be immediate and dramatic. Blind and visually impaired people, as well as other people with disabilities as defined in the proposed exemption, can have the materials they need to help them pursue educational and training needs at the same time as those people who have access to these materials through conventional print formats.

Both as publisher through AFB Press and as a pioneer in the development of recorded books for the blind, we have come to understand the need for adequate copyright protections. At the same time, through our own experiences and relationships with producers of specialized formats like the American Printing House for the Blind, Recordings for the Blind and Dyslexic and the two consumer organizations, the American Council of the Blind and the National Federation of the Blind, we have concluded that the present system prevents the timely access to materials needed by people who are blind or visually impaired.

The statement of the American Printing House for the Blind presented to the Subcommittee on February 8, 1996 contains an excellent summary of the barriers to timely production of Braille textbooks. These problems, as well as similar problems in the production of specialized audio or digital formats, can be much more easily surmounted by the enactment of this exemption.

The consensus proposal achieved by the Association of American Publishers is a common sense approach. It carefully outlines the entities authorized to produce such materials, the formats intended for the exemption, and the population eligible or who may qualify under a system which has a long history of accountability in the copyright arena.

Given that this is an issue in H.R. 2441 which has the support of all entities involved, we urge the Subcommittee to act quickly on the substitute language.



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February 5, 1996

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Re: H.R. 2441, The NII Copyright Protection Act of 1995

Dear Mr. Chairman:

At the outset, we wish to thank the Subcommittee for inviting connection with hearings on H.R. 2441, the NII Copyright Protection Act. The NPA is a large association of mostly small, independent publishers whose members have a unique stake in the application of copyright law to the National Information Infrastructure, and who strongly favor this legislation.

Although some of your colleagues may be familiar with the NPA from our prior appearances before the Subcommittee in connection with other legislation, a brief introduction may be in order. The NPA is a trade association representing publishers of approximately 2,200 newsletters and other specialized information services upon which business, industry, medicine, science, and the arts depend daily for the information necessary to their respective pursuits. In relation to publications such as *Newsweek* or *The New York Times*, any one newsletter may have a small subscription base. However, we think it fair to say that our members' publications play an extremely important role in their fields. The typical subscriber depends upon a given newsletter for specialized, accurate and up-to-the-minute information and analysis of developments and trends in a particular area. And the areas covered by NPA members quite literally range from A to Z, from *Aerospace Daily* to *Mexican Environmental Business* to the *Zoning Bulletin*. Newsletter journalists are accredited members of the Periodical Press Gallery in Congress, the White House press corps, and other such institutions, domestic and international. We do not think it overstates the metaphor to say that NPA's members, the majority of whom have fewer

The Honorable Carlos J. Moorhead
 February 5, 1996
 Page 2

than ten employees, are -- in a very real sense -- the modern-day version of Thomas Paine's "lonely pamphleteers."

• To understand why the NPA so strongly favors passage of the NII Copyright Protection Act, an appreciation of one other characteristic of newsletters is important. Unlike mass circulation newspapers and magazines, most newsletters eschew all advertising in order better to maintain their editorial integrity. Thus, most newsletter publishers are dependent solely upon subscription revenue for income. Furthermore, the typical newsletter is time-sensitive, short in length, and expensive for the publisher to produce. As a result, the publishers who make up the NPA are particularly vulnerable to any unauthorized reproduction of their copyrighted works, while corporate users of a newsletter with multiple employees have a strong need for multiple copies. Although most of our members offer bulk subscription discounts, some corporate customers nonetheless choose to pay for only one subscription to a given publication, and then violate the publisher's copyright by making multiple copies of every issue, sometimes for hundreds of employees. Both Congress and the Courts have recognized this danger. During debate over the Copyright Act of 1976, the House observed:

[A]s a general principle, it seems clear that the scope of the fair use doctrine should be considerably narrower in the case of newsletters than in that of either mass-circulation periodicals or scientific journals.

H.R. Rep. No. 94-1476, 94th Cong., 2d Sess., at 73 (1976). And courts called upon to consider this type of infringement have agreed with Congress. See, e.g., *Television Digest, Inc. v. United States Telephone Ass'n*, 841 F. Supp. 5 (D.D.C. 1993); *Pasha Publications, Inc. v. Enmark Gas Corp.*, 19 Media L. Rep. (BNA) 2062 (N.D. Tex. 1992).

The NII Copyright Protection Act is essential to the continuing ability of our members to project their voices into the nation's marketplace of ideas. That marketplace has been, at least until recently, primarily the province of the printed page. Existing law has adequately protected newsletter publishers from the threat of photocopying. More recently, however, America's marketplace of ideas has begun a dramatic shift to the paperless web of the Internet, where ideas are exchanged -- and business conducted -- with the press of buttons and the transfer of electronic bytes. Corporations increasingly scan our written products into their internal databases and, in some cases, have made a single hard-copy subscription available electronically to offices world-wide. Now, as newsletter publishers are taking their first steps onto the Internet, we can anticipate suffering the same kind of infringement on a truly global scale. As officers of the NPA, we hear a clear and growing refrain from our members: "Without a clear statement of what is and isn't permissible copying on the NII, putting our editorial product on the Internet would risk putting us out of business."

This is so because the Internet is a medium highly conducive to wide-ranging "browsing," or reading without buying. More than a year ago, the United States Patent

The Honorable Carlos J. Moorhead
 February 5, 1996
 Page 3

and Trademark Office formed a working group composed of representatives of both content providers and content users to consider the relationship between the well-established doctrine of "fair use" and the NII. That group, in which NPA has participated, has devoted several of its sessions to the subject of browsing and has yet to arrive at any consensus on the appropriate boundaries of fair (*i.e.*, free) use on the Internet. The more extreme "Cyber-Libertarians" argue that every Internet user should have the right to access, download and use the NII's entire contents without charge. Putting aside this radical (and, we think, obviously unacceptable) view that any item placed on the NII should be deemed to have entered the public domain, some more reasonable advocates -- including, primarily, librarians -- argue that a digitized library is no different than one composed of hard copies. Thus, they argue, they should be permitted to "loan" (that is, to transmit) copies of a digitized work to patrons who request it from the library's electronic collection, just as they would loan a hard copy to patrons who appear in person at the library. Indeed, Section 3 of H.R. 2441, which extends to digitized copies the same exemptions enjoyed by libraries for certain hard copies in their possession under Section 108 of the existing Copyright Act, recognizes the desire of librarians to treat both formats as the same. While the NPA does not object to the goal of Section 3 in and of itself, the argument that a library of paper is the same as a library of bytes, of course, ignores several critical distinctions between the traditional and an electronic library collection. The potential universe of patrons in the electronic realm consists of every user of the NII, and a single "copy" of a publication (*e.g.*, a digitized edition of an issue of a newsletter) can simultaneously be "loaned" to millions of users.

While the NPA agrees with those more responsible user-advocates who argue that increased public "access" is a value that the NII must serve, at the same time, we believe that access is not inconsistent with an appropriate balance of rights between owners and users. Any system that does not recognize that a great range of publications -- including, especially, newsletters -- derive their commercial value from being "browsed" runs the very serious risk of eviscerating the incentives the Copyright law was intended to create, and of driving newsletter and other types of publishers either out of business or, at the least, off of the NII. Needless to say, that result would be a great loss for the American public.

Thus, the provisions of H.R. 2441 that clarify existing law by making clear that "transmission" of a copyrighted work on line is the equivalent of distributing it (and, thus, an act which implicates one of the exclusive rights granted to a copyright owner under Section 106 of existing law) are not only critical to protecting publishers from loss of the value of the editorial product, they also are critical to the general public because they will encourage the flow of information products onto the NII. Nonetheless, the proposed legislation fails to address at least one point: H.R. 2441 does not provide a "bright line" rule to demarcate clearly acceptable from unacceptable (or fair from unfair) usage of transmitted works. Librarians and others understandably favor bright-line tests and, as noted above, existing law already recognizes that newsletters should be exempted from broad, uncompensated access to their editorial contents. We believe the same line can

The Honorable Carlos J. Moorhead
February 5, 1996
Page 4

easily and helpfully be drawn for the electronic realm by the present legislation, and we encourage the Subcommittee to include language making plain that, as under current law, fair use does not extend to browsing (or making available for browsing) newsletters on line.

In this regard, we note that Section 4 of the legislation, which would prohibit the circumvention of copyright protection systems and protect the integrity of copyright management information, is the means by which the foregoing rights can be protected and enforced on the NII. Most of NPA's members are too small to have themselves invested in the research and development of copyright protection technology such as encryption or other devices. But newsletter publishers eagerly await government- or industry-sponsored leadership in this area. Just as a door, without a lock, provides no security to what lies within (and thereby discourages the proprietor from leaving anything valuable behind the door), a copyright in digitized information, without a means for limiting access to authorized users, provides no security for a publisher's intellectual property, and few publishers will risk leaving their editorial product open to all comers.

H.R. 2441 is critically important to the ability of NPA members to move their publications onto the NII and into the hands of the rapidly increasing number of Americans who have come to rely upon the Internet as their source of information. We hope that Congress will move expeditiously to send this Act to President Clinton for his signature. We thank the Subcommittee for its work in connection with this legislation.

Sincerely,

The Newsletter Publishers Association

By: Daniel Warren / scc
Daniel Warren
(Warren Publishing, Inc.)
Chairman, Legal and Legislative Affairs Committee

By: Andrew Jacobson / scc
Andrew Jacobson
(BRP Publications, Inc.)
Chairman, Subcommittee on Intellectual Property



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February 14, 1996

The Honorable Carlos Moorhead
Chairman, Subcommittee on Courts and Intellectual Property
of the House Committee on the Judiciary
House of Representatives
Washington, DC 20515

Dear Mr. Chairman and Members of the Subcommittee:

During my February 8 testimony on behalf of the Association of American Publishers ("AAP") concerning HR 2441, I agreed to submit written answers for the Subcommittee's hearing record in response to two questions posed by members of the Subcommittee. These questions sought clarification of AAP's concerns regarding:

(1) the "primary purpose or effect" standard in the bill's proposed new Section 1201 of the Copyright Act regarding the circumvention of copyright protection systems; and,

(2) the potential problems that might arise under the Copyright Act's mandatory deposit requirements as a result of provisions in Section 2 of the bill which would amend the Act's definitions of "distribution" and "publication" to encompass "transmission" of copyrighted works in digital form.

There were also some comments raised by other witnesses about the value of the Conference on Fair Use and about how technology might address some of the problems of widespread abuse of copyright on the Internet.

Let me address each of these matters separately.

Section 1201 - Black Box

As introduced, H.R. 2441 proposes to add a new Section 1201 to the Copyright Act to make it unlawful to import, manufacture or distribute any device, product, or incorporated component thereof whose "primary purpose or effect" is to circumvent copyright protection systems without the authority of the copyright owner or the law.

AAP strongly supports the goal of this provision in light of our efforts to help develop and promote the use of effective copyright management systems for the digital environment. See "Copyright Management and the NII: Report to the Enabling

Technologies Committee of the Association of American Publishers," Christopher Burns, Inc., May 31, 1995 (attached). Such systems will represent a fusion of technological, business and legal components, and AAP welcomes the bill's recognition of the need to deter technological efforts to thwart them.

AAP is concerned, however, about the difficulties in having to prove the "primary purpose or effect" of complicated, multi-purpose technological devices. We would prefer a statutory scheme that simply makes clear that tampering with copyright protection systems and copyright management systems is actionable, and that Congress will not tolerate efforts designed to evade such systems.

Mandatory Deposit

The copyright law currently requires that published copyrighted works — i.e., works distributed to the public — are subject to mandatory deposit in the Library of Congress. The intention of the provision is to enhance the Library's collections and preserve our nation's heritage and culture. Deposit copies are either maintained by the Library or may be exchanged with other libraries or provided as gifts.

AAP supports the Library of Congress and this part of the copyright law. However, as explained in our statement, not all material that is distributed over the network is "published" as a matter of copyright law or even common sense. There will be instances where material is disseminated, for example, to a limited audience for limited purposes. This has never been, nor should it be, a "publication" of the work for purposes of the Copyright Act. In such circumstances, it should be clear that the mandatory deposit requirement does not apply because the work has not been "published" for purposes of this requirement.

In addition, in the digital world, even where publication has occurred, the use of materials is commonly governed by license. Electronic or digital products are frequently subject to different rights agreements with authors and other contributors, i.e., a CD-ROM publisher might have the right to sell or license a product and its underlying music, animation, or text to a school while the consumer use is retained by another copyright holder. When the Library of Congress established its machine-readable reading room, AAP and the Information Industry Association worked closely with the Library on specific terms and conditions for the use of CD-ROM products to enable voluntary deposit agreements and to limit uses which might conflict with the rights held by the publisher. We are not concerned about the mere possession by the Library of Congress of deposited works in digital form, but we are concerned with the uses of such works which might violate copyright agreements and other contracts or distort and injure our markets. However, our experience on the CD-ROM deposit agreement makes us confident that we can find a workable resolution of these issues in cooperation with the Library and we look forward to doing so.

Conference on Fair Use

During the hearing there were some comments by other witnesses questioning the value of the Conference on Fair Use. AAP continues to find this Conference and its process productive and valuable and the participation balanced. Over 100 groups and individuals, representing diverse constituencies including many library and educational organizations as well as copyright interests, have been meeting monthly for over a year. A core group of over 60 continues to attend every meeting. The Conference has already helped to produce the specific legislative recommendations in H.R. 2441 on library preservation and security and the exemption for the blind. The other issues being discussed by participants are quite complex and do not lend themselves to easy resolution. However, a healthy dialogue has emerged.

Technology to Protect Copyright

Several comments at the hearing raised the question of how copyright can realistically be protected in a digital environment. We agree that this new world requires new approaches to protection, but AAP members believe that effective copyright management systems can be developed to protect copyrighted works in a digital environment. Accordingly, we have been working with technology vendors to encourage the development of various types of protections. Some systems deter or prevent unauthorized copying while others facilitate usage by providing necessary authorizations. In our testimony we suggested that a partial answer to the problems caused by the machine might be found in the machine itself. Work is going forward on this research and development as reflected in the attached report (Copyright Management and the NII). However, we also need the legal framework provided by HR 2441.

No one expects HR 2441 by itself to provide all of the copyright protection needed but it is a necessary part of the solution. AAP is as committed to the development of technological solutions and responsible business models for copyright protection as it is to the establishment of the proper legal framework.

Sincerely,



Richard Robinson, CEO and President
Scholastic, Inc. and Vice Chairman of the
Association of American Publishers

cc: Members of the Subcommittee on Courts and Intellectual Property of the
House Committee on the Judiciary

attachment: Copyright Management and the NII

Copyright Management and the NII
Report to the Enabling Technologies Committee
of the Association of American Publishers

May 31, 1995

CHRISTOPHER BURNS, INC.

Table of Contents

EXECUTIVE SUMMARY	1
A. The Impact of Technology	1
<i>Table 1: Impact of Technology on Publishing Sector</i>	<i>1</i>
B. Requirements of Publishers	3
1. Response on the network will improve.	4
2. Access will be more generally available.	4
3. The cost of access will be low.	4
4. Access will be "sessionless".	4
5. Viewer and subscriber software will evolve quickly.	5
6. On-line billing systems will be in place by the end of 1995.	5
C. How Can Copyright Be Protected?	6
1. Encryption is satisfactory.	6
2. Pass-along of unencrypted files is hard to prevent.	6
3. Unauthorized publication can be deterred and detected.	6
4. File authentication and security is available.	7
D. What Business Models Work?	7
1. The new medium is most suitable for articles, essays and reference records.	7
2. Intermediate market services are very likely.	8
E. Recommendations	9
1. Establish a Uniform File Identifier	9
2. Lead the Evolution	9
3. Create a New Technology Monitor	9
I. REQUIREMENTS OF THE PUBLISHERS	11
A. Network Performance and Security	12
1. Transaction Security	12
2. Billing and Collection Systems	13
3. Network Performance	13
4. Web Browsers	14
B. Copyright Management	15
1. Unauthorized Distribution	17
2. Unauthorized Pass-Along	18
3. Document Integrity	20
4. Unauthorized Access	21

C. Publishing Systems	22
1. Authoring Tools	22
2. Internal Editorial Functions	23
3. Acquiring Electronic Rights	23
D. Market Uncertainties	23
1. Installed Population	24
2. Selling Segments Instead of Whole Books	24
3. Competition from Emergent "Publishers"	25
E. Relevance by Sector	25
<i>Table 2: Matrix of Technologic Issues by Market Sector</i>	26
F. Issues and Outlook	27
II. ASSESSMENT: ELECTRONIC BOOKS	29
<i>Table 3: The Cost of Traditional Book Publishing</i>	29
A. Access, Usage and Security	30
<i>Figure 1: Local Access and Usage Systems</i>	30
1. Registration	31
2. The Keys	31
3. Usage Accounting	32
4. System Security	33
<i>Table 4: Comparison of System Proposals</i>	33
B. Peer to Peer Sales	34
C. Issues and Outlook	35
1. Charging for Usage	35
2. Privacy	36
3. Tracking and Billing Systems	36
III. ASSESSMENT: WORLD WIDE WEB	37
A. Evolution and Outlook for Technology	37
1. Background	37
<i>Figure 2: The Internet</i>	38
<i>Figure 3: Worldwide Growth of Web Servers</i>	39
2. The Communications Network	40
<i>Table 5: Typical Transmission Rates per Minute</i>	41
3. Browsers	41
4. Future Browser Functions	43

B. Copy Protection and Security of HTML Files	44
<i>Figure 4: An Attractive HTML Screen</i>	46
C. Publishing Models	47
1. Information	48
2. Bookstores	48
3. Electronic Books	48
4. Information Services	49
5. Journals	49
D. Billing and Security	50
<i>Figure 5: Transaction Systems</i>	51
1. CyberCash	52
2. NetBill	52
3. First Virtual	54
4. Open Market	55
<i>Table 6: Comparison of Billing Systems</i>	56
E. Evolution of the Marketplace	56
1. Growth of the NII	56
<i>Figure 6: Growth of NII Installations</i>	57
2. Optimized Networks	57
IV. RECOMMENDATIONS	59
A. Define the Product: Uniform File Identifier	59
B. Lead the Evolution	60
C. Create a Forum and Test Site on the Web	61
Persons Interviewed	63
Additional Resources	67
Authors	68

Executive Summary

During the first four months of 1995 we conducted an extensive series of interviews with U.S. publishers to identify for each of the different publishing segments what enabling technologies were needed for successful publishing on the National Information Infrastructure. A second group of interviews with technology companies attempted to determine the extent to which those systems and facilities were available or could be developed—particularly with regard to managing the sale and distribution of copyrighted information over the NII. We did not explore the issues surrounding the illegal scanning of copyrighted materials, important as that issue is, nor does this report attempt to prescribe specific business strategies. Its goal is to understand how book publishers can make the greatest possible use of the emerging NII, and to identify specific technologies which publishers can assist in developing. The assessments are those of the consultant, and do not necessarily reflect the opinion of the Committee.

A. The Impact of Technology

The research was framed in terms of nine major market sectors and five critical technologies. The basic question was, in each of these sectors, which technologies were critical, why, and how is the situation likely to evolve over the next few years?

Table 1: Impact of Technology on Market Sector

Sector	NII	PC Cards CDROMs	Metered Billing	On-line Billing	File Format
Trade	○			○	
Children's	○			○	
El-Hi	○	●	●		●
Higher Ed	●	○	○		○
Scholarly		○			
Journals	●			●	●
Professional	●	●	●	●	
Reference	○	●	●	○	
Library	●	●	●	●	●

○ = Important ● = Critical

For trade and children's publishing, the general conclusion was that opportunities for electronic publishing might emerge on popular services such as America On-line and Microsoft, but the impact of the new technology is not otherwise likely to be felt over the next three years.

For the elementary school sector, CD-ROMs and PC Cards, already important new publishing media, are expected to continue to grow. Controlling access to the material and basing the price on metered usage are the issues of greatest immediate concern, and the technology required seems to be available. Important new opportunities will emerge over the next three years as a result of this technology.

In the area of higher education, too, the ability to provide an extensive on-line library of course materials is critical and near term, but there are important issues unresolved including how to prevent pass-along, how to authenticate the file and how to provide cost-effective access.

Over the near term the publishing of scholarly books is likely to be affected most by emerging CD-ROM and PC Card publishing systems that can make very large scholarly collections and related data available to the user in a manner that has not been possible in books.

Journal publishing is clearly one of the sectors where the technology has already begun to have an impact. Several experiments are underway to determine how on-line access can be provided on a subscription basis, preserving long term support for the journal's basic role while permitting the price in some way to reflect usage. The critical issue of how to publish journals on the NII is more dependent on new business models than on copyright, which is clear, or technology, which is largely available today.

Professional publishing, including scientific, technical and medical areas, has been well served by the on-line information industry for twenty years, and the expectation is that the NII will improve but not fundamentally change that situation. There is an opportunity to create new CD-ROMs and PC Cards which incorporate access control and metered billing that will simplify the distribution of some of these materials and potentially expand the market. Because of the high cost and high value of information in this sector, changing the business model has considerable risk—but when politicians and technologists talk about how the National Information Infrastructure can change our economy, it is largely in this sector where the opportunities seem to lie.

Reference information is already extensively sold in CD-ROM format, and the prospect of being able to base the price on actual usage is an important and intriguing one. Apart from the library sector, discussed below, reference material on-line may have potential for the small office/home office market which is already adopting the new NII technology, but since the purchases would presumably be small, the on-line billing systems have to be simple and cost efficient.

Corporate, public and academic libraries are among the most advanced users of new information technologies outside of the financial industry and all the technology issues are critical. In light of the low cost and rapidly expanding network, libraries and individual publishers must work together to address issues of file maintenance, copyright protection, and various business models. For example, they need to find metering systems that don't unnecessarily encumber the users, and services that provide their community with a simple billing mechanism, useful navigation tools and good technical support.

B. Requirements of Publishers

In all sectors of the publishing industry the management of copyrighted information emerges as critical, and it is inevitably a combination of technology, property rights and business models. In looking forward to the NII, the publishers interviewed had major concerns in each area:

- How will this network function? In these early days of expansion, quality of service on the Internet is unpredictable, financial transactions are insecure and the number of services already available create a sense not of choice but of confusion. What kind of network performance can be expected, what kind of interface will evolve, how is anyone supposed to do business in this environment?
- How can copyright be protected? How can such an open, decentralized system provide access without also creating the risk of unauthorized copying and distribution? If copyright infringement becomes the rule, then the most valuable information will remain available only in print, the network will evolve into a forum for commercial messages and unstructured ideas and much of the promise of the NII will have been lost.
- What are the potential business models? How can individual publishers structure access, usefulness and cost in markets as diverse as libraries, colleges, scholarly communities, elementary schools and professional firms?

We have asked those questions in more than 50 interviews both with publishers actively experimenting in the new medium and with top scientists in many of the major technology firms. The technology answers do not exactly overlap the publishing questions, and to make sense of the discussion, it is necessary to accept assumptions and forecasts about market response and the evolution of technology which have not been fully examined. But out of this dialog there seem to be several points of convergence:

1. Response on the network will improve.

The volume of information that the network can handle will increase significantly, and the current delays which users experience are expected to be greatly reduced. This comes in part from access providers catching up with demand, corporations and universities adjusting their internal networks to the new requirements and the overall increase of capacity and responsiveness on the Internet itself.

2. Access will be more generally available..

Windows 95, IBM OS/2 and future PC operating systems are expected to include access software for the Web. Modems are likely to be part of most "basic" systems, and along with the continuing adoption of the PC as an information and entertainment device, as many as 30 to 50 million US households, businesses, libraries and schools will have access to the NII by the end of the decade.

3. The cost of access will be low.

Now at less than \$1 per hour, the cost of reaching NII is expected to drop and Microsoft, at least, plans at some point in the future to fund access entirely by taking a portion of the revenues generated by the information providers. In some cases it may be cheaper for the user to access files on the publisher's system than to maintain them on a local server in the library, the university or the corporation. In addition, the publisher's site may offer current data, regularly tested hyperlinks, better security, better navigation and better access and technical support than users can get from their own systems.

4. Access will be "sessionless".

According to the technology companies we interviewed, those who have access to the new NII will come to think of it as constantly there. Logging on will be automatic, done in background by the operating system whenever the situation requires it. Applications like word processing, spreadsheets and E-mail will include hyperlinks that take the user out to an external resource

without leaving the task at hand. To send a copy of an article to a friend, for example, you will put its location in an E-mail message, and when the message is opened and the location is clicked, the system will go to the network and retrieve the text. If true, this permits a user to access information without necessarily downloading and saving a standard file, and that in turn may reduce the risk of pass-along.

5. Viewer and subscriber software will evolve quickly.

Web browsers, which scarcely existed a year ago, are now an area of serious investment and tough competition. The HTML standard will evolve quickly, as will commercial browsers, and we expect this to lead to secure transmissions, better navigation aids, integrated audio and more control over the placement of images.

There is an important opportunity here for publishers to work more closely with the developers of browser software so that the ability to save a file onto the user's own system is an *option* under publisher's control.

It is unlikely that light, battery powered, updatable electronic "books" will emerge over the next five years, except as part of the continuing evolution of laptop computers. To the extent that the market requires this functionality, PC Cards in laptops are an attractive and well established answer. To branch away from that class of systems and move toward a hand-held, low power device without a keyboard might be technically possible, even one that can be updated over the Internet. But the technologists we interviewed doubt that, outside the defense and financial services community, there is sufficient competitive space between the laptop, the pager and the book. Most current and anticipated needs can be met by these three systems

6. On-line billing systems will be in place by the end of 1995.

Systems for transaction security and billing are rapidly evolving, and publishers will have several choices at varying levels of security and service to support the sale of books or information over the NII. The basis for most transactions will be the user's credit card or the organization's account number and purchase order.

C. How Can Copyright Be Protected?

1. *Encryption is satisfactory.*

Information delivered on CD-ROMs and PC Cards can be encrypted and access can be regulated so that the individual user, the company or the library is charged according to the usage they make of the information. Several systems are commercially available for this purpose, and others have been proposed. They place restrictions on the user and they require an ongoing account management and billing system on the part of the publisher that may not be desirable or cost justified in all cases.

2. *Pass-along of unencrypted files is hard to prevent.*

Several companies have suggested technologies that would permit authorized users to view and print information from encrypted files. Even if these files are passed along to others, the unauthorized user would not have access. But these solutions do not address the problem of an unencrypted file, and publishers must continue to be cautious about how such files are distributed.

3. *Unauthorized publication can be deterred and detected..*

Unauthorized distribution of copyright information was generally identified by publishers as the most serious risk in publishing on the emerging network, and publishers and technologists agreed that protection lies mainly in deterrence and detection.

- If the industry creates a uniform file identifier that unambiguously describes the item, the copyright owner and the permissions extended, if any, then publishers can detect unauthorized distribution on public networks and enforce the copyright law. This is the most important issue the AAP can address over the next few months.

- If the copyright law is modified as suggested by the Information Infrastructure Task Force such that removal or alteration of the uniform file identifier would be penalized by a \$2,500 fine, then redistribution of this information *without* the file identifier would also be a violation.

- The World Wide Web provides information in such a way that makes it difficult for the user to save a file of more than a few pages in useful form. Unless the publisher specifically enables the transfer of an unencrypted file, the user who wishes to capture information on the Web must print the screen or save the HTML file. Short, simple materials can be saved and converted by

the user into reprocessible files, but Web pages with hyperlinks, images and multiple sections are harder to convert to useful files, and in any event would lack the required copyright and permissions statement that the publisher must provide. Distributing such files would be difficult.

4. File authentication and security is available.

In those cases where the user has access to an unencrypted file, the authenticity and integrity of that file can be assured by adopting a PDF file format such as Adobe Acrobat. This format is like an envelope that allows the user to read the material and make copies of it for others, but it prevents the user from making any changes to the text, the format or the graphics. Publishers for whom this capability is important will have to develop formats and procedures that are more advanced than those now offered, and journal publishers in particular may find it useful to establish common PDF formats for handling text and image intensive documents.

A second envelope is often created by encrypting the file, preventing it from being viewed by anyone without authorized access. This is used with CD-ROMs and PC Cards in the context of a metering system, and our interviews indicated that the encryption schemes are adequate for all commercial publishing purposes. The same technology can be applied to network services, and publishers can and should lead systems vendors toward a practical application of metering on the NII.

More recently, a third kind of envelope has been proposed that includes permissions information and usage accounting along with the document so that as it is passed from user to user a central clearinghouse can track who has used it and how much to charge. Overall, there are several available levels of file authentication and security, depending on the cost tradeoffs the publisher has to make.

D. What Business Models Work?

1. The new medium is most suitable for articles, essays and reference records.

The publishing industry is optimized to produce book-length packages, and where that packaging is natural to the information it contains, the printed book will continue to be a popular and efficient delivery mechanism for decades to come. The technology we have reviewed does not offer an attractive alternative for delivering novels, scholarly or professional treatises, histories, biographies or extended essays, nor do we expect such technology to emerge in the next decade. The traditional "book" will continue to thrive because it is inexpensive and easy to use.

But much information is more granular. Its natural form is the article, essay, lesson plan, anecdote, diagnostic tool, clinical guideline, statistical profile of a company or legal case. The basic unit of commercial information is increasingly the abstract, the price quote, the image, the notice or the news story. In each case the logical unit of information is small and easily displayed on a computer screen. In each case the "reader" is often a group, and while books and journals are by their nature difficult for the group to share, electronic files are easy. When it comes to delivering these items, the electronic technology available is much more efficient than the book.

The content most likely to be delivered over the NII is journals, educational materials for elementary and high school markets, higher education texts and professional information. Both the publishers and technology companies we interviewed felt that the NII is less likely to be used for traditional trade, children's and scholarly books.

2. Intermediate market services are very likely.

Like the business information market that buys more than \$15 billion in electronic information every year, the market for electronic publishing services is likely to move toward intermediate companies that gather materials from many publishers. AAP should be alert to opportunities for encouraging the emergence of such service businesses.

The existing on-line services—America On-line, CompuServe and Prodigy—are all planning to create service collections on the network, and MCI, AT&T and Microsoft have announced plans to do the same. In each case the company proposes to define a market segment—home, small office/home office, sports enthusiast, law firm—and provide content selection, navigation, central billing and support. This will help the general market find valuable content in the new medium.

But on a smaller scale, it is likely that similar market aggregation mechanisms will emerge to serve selected market segments like chemical researchers, medical clinics, elementary schools and community libraries. In each case these services would identify relevant content; provide logical indexing, navigation and browsing; aggregate purchases onto a central bill and offer promotion, training and support on behalf of the many publishers they represent. Traditional bookstores have played a critical role in the print publishing system, and their electronic counterparts are inevitable.

E. Recommendations

1. Establish a Uniform File Identifier

Fundamental to any copyright management system or clarification of rights is the establishment of a clear product identity, and several organizations are now separately defining standards for identifying electronic files. We urge the AAP to become much more actively involved in this effort in order to include the author's identity; publisher, publication and component; permission restrictions and the identity of the person for whom this copy has been made. The format of this statement should be defined both for independent files and for HTML screens transmitted over the NII.

2. Lead the Evolution

In addition, we recommend that the Association convene a series of publishing technology conferences, each focusing on a specific market to be served such as journals, K-12, higher education, public libraries and professional/reference. The conferences would invite customers, technology companies and publishing teams to discuss service designs, technical capabilities and joint experiments that might facilitate evolution of the NII toward practical and mutually beneficial goals. Current opportunities and technologies are best defined and addressed by individual publishers, but the Association can serve as a useful forum by which the industry looks beyond the next year or two, seeking out appropriate technologies, identifying potential business models, and exploring the content and packaging needs of various markets.

3. Create a New Technology Monitor

Finally we recommend that the AAP launch a program to systematically monitor and disseminate information about emerging technology, copyright issues and new publishing models, and that the principal method of distributing that information be the new AAP Web site. Through the experimental nature of its operation, as well as through the content of its service, the New Technology Monitor can become both a way to inform the membership about new technologies and an evolving example of how various alternatives might work.

These are modest goals. In addition to the strong role it has always played in copyright matters, this expands the Association's area of activity into technology through the development of standards, the exploration of new publishing models and the dissemination of information. It might have been expected that this study would recommend development of a national

mechanism for clearing permissions, or the development of a uniform metering system for books and journals, but the copyright management issue is not a systems and technology challenge alone. It requires a new and complex reconsideration of business models and customer's requirements as well. In addressing the whole issue, we believe that AAP can create a framework for the substantial growth of its members while fulfilling the NII's potential as a dramatic new way to provide access to information and ideas.

1. Requirements of the Publishers

During the first phase of this research we interviewed 32 US publishing executives who are actively involved in new publishing projects on the Internet. All but a few of these interviews lasted for more than an hour and were conducted in person. In each case the executive was asked what obstacles the company had experienced and what problems were anticipated in developing a strong, profitable publishing activity on such networks, now and in the future. What areas did they feel required attention or remediation, and how serious were these problems in each case?

Although technology is the primary focus of the study, the questions were not restricted to technology issues, nor were the answers. In fact the most prominent problems—unauthorized pass-along, transaction security and a sufficiency of real buyers—are not technical at all. But what emerges from the study is that in their efforts to develop a productive and profitable new medium, publishers must solve the copyright management problem in three dimensions: (a) what is the appropriate technology, (b) what are the sustainable boundaries of copyright and (c) what are the potential business models for recovering the costs of publication? For example, the Internet offers a powerful new alternative for the distribution of scholarly journal articles, but the rights to such electronic distribution must be regulated and the current annual subscription model must be expanded and adapted or the new technology will not improve the situation for the reader, the author or the publisher.

Throughout the interviews there was a tension between the obvious need to protect new media products against copying and an enthusiasm to explore the possibilities inherent in the new form. The most interesting opportunities seem to lie in building multi-part, multi-media information clusters that cannot usefully be copied to print. In fact it may be hard to move the information cluster off its host and still preserve its vitality and value. This is a book that cannot be separated from its author.

How individual publishers choose between “protect” and “explore” will be a matter of style and competition; research cannot prescribe for an industry. But in every interview we asked executives to try balancing the two, and out of those discussions comes the sense that publishers should focus on enabling business models, some standards and, to a lesser extent, technological safeguards. The major challenge is to explore this new medium and to discover how it can be used to perform the publisher’s oldest and most important task, even if the new ways are surprising, counter-intuitive and chancy.

A. Network Performance and Security

A number of issues were raised in the interviews about the readiness of the Internet for commercial traffic, and the general conclusion seemed to be that four serious deficiencies currently block publishers from making a more aggressive commitment to the new medium:

(a) The Internet is not secure. In its present form there is the real risk that transactions can be monitored, that files can be downloaded without authorization and that the information stored on the publisher's host can even be modified.

(b) The provisions for billing and collection are embryonic.

(c) A more difficult problem is the obviously uneven performance of the Internet. Depending on the bandwidth and traffic at the local point of access, the traffic on the network generally and the number of users trying to reach a given data destination, response time can vary widely from less than a second to several minutes.

(d) Moreover, the current generation of browsers and SLIP or PPP managers now being distributed are notorious for their lack of stability. As exciting as the World Wide Web is, there is also much cause for frustration.

These issues are viewed as serious but temporary: the consensus is that by early 1996 the security risks will have been largely eliminated, and by the end of 1996 billing and collection systems will be well established. The performance of the network will improve steadily over the next few years, and the user software -- now in its early form -- will improve significantly.

1. Transaction Security

Publishers are concerned that a person might deliberately monitor, copy or decrypt private communications over the network, usually to gain credit card numbers, passwords and other access codes.

Example: At a university computer center which serves as a major Internet node, a student hacker breaks into a workstation processing Internet traffic and begins to monitor all traffic looking for credit card numbers, capturing a defined sample of data preceding and following the number. Over a period of weeks the hacker builds a library of card numbers with corresponding user ID's and passwords, and after testing, compiles a library of active credit cards from users throughout the world.

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In addition to the Electronic Communications Privacy Act (ECPA), the Computer Fraud and Abuse Act provides explicit prohibitions against this behavior. The general view now is that a number of firewall and encryption schemes are being offered that will effectively prevent this kind of security breach at least as well as any other computer system now supporting commercial transactions.¹

2. Billing and Collection Systems

Nearly all of the publishing projects now being developed for the Internet plan to go beyond their current posture as a promotion effort to create at least an on-line bookstore and possibly a more versatile information service. To do this, publishers need a way to have the following functions performed:

- Provide a secure system for transmitting the card number.
- Authenticate the user by asking for a password or other key.
- Confirm the validity of the number—is it active, does the user have credit?
- Add the charge to the customer's credit card bill through one of the major credit card banking groups.
- Confirm for the publisher that the customer has paid, and that the books can be shipped or access provided.

It is fairly simple for a small merchant to take a credit card or account number, check it quickly against a list of invalid numbers and then submit the item for payment. But it will be more complex for a small publisher to do this on-line, and at some point large bookstores will appear that can offer a more diverse collection and process the purchase more quickly.

3. Network Performance

Initially designed for the exchange of government and academic research, the Internet is now being used for commercial applications where the tolerance for delays and performance interruptions is much more limited. The network is not ready.

A user can sign onto the Net in the evening and get excellent response, only to return the following afternoon and experience delays of several minutes. The actual peak of Internet traffic at this point is 11am to 4pm, repeating the classic 10:30 and 2:30 peaks in local traffic experienced for

¹ Cavazos, Edward A. and Gavino Morin, *Cyberspace and the Law, Your Rights and Duties in the On-line World*, The MIT Press, Cambridge, 1994.

decades by phone companies. A national site will get the same two peaks, but shifted across four time zones.

In addition to the Internet traffic problems, users will experience traffic contention on their own LAN as many struggle to access a few communications ports.

Finally the Web site will produce delays as it tries to serve an unpredictable number of users. Based on public data, we estimate that Time Inc.'s Pathfinder system is getting 1-2 users signing on every second, each calling for about five retrievals including images. Our own experience in designing Web systems has been that while the host requires less than a second to respond to a retrieval request, the user may experience delays of 2 seconds to a minute, depending just on the time of day.

Many of the current academic and corporate users have broad-band access to the network, giving them subsecond access to files and images. In the long run this will become the normal mode, and service designers are urged to imagine a "session-less" relationship between the user and the service. It is always there; no sign-on is required. Windows 95 treats the Internet as an icon constantly available, as if all the world's computers were connected directly to the keyboard.

But an important part of the market for publishers will consist for many years of individuals at home, professionals in small offices, schools and libraries as well as others travelling with laptops. These users must sign on to the network over normal telephone lines, and the current experience in that regard is unsatisfactory. The Internet traffic requirements must be more accurately anticipated, and commercial networks that strive to give users subsecond response will have to build in peak load traffic-sharing and performance assurance schemes.

4. Web Browsers

Part of the secret to the Internet's recent surge in popularity has been the emergence of a simple file format standard—HTML—and the development of many free browsers that can easily handle text and images. But these viewers are still in the prototype and shareware stage.

PC Magazine recently reviewed 13 Web Browsers, and another 50 are said to be in current development. There are several performance and functionality deficiencies, though, which all of these products seem to share:

- Implementation of the TCP/IP standard protocol is still uneven, and some browsers only work with some TCP/IP programs. The effect of this is that the Internet access software will fail without warning, or not run at all with certain networks.

- All the browsers currently on the market support only a single window at a time, but many applications would benefit from having multiple windows open within a browser, each acting independently.

- None of the current browsers support an application specific toolbar that would be more efficient than having to create "buttons" within the HTML window.

- The browsers we have seen (Mosaic, Chameleon, Booklink, IBM, Netscape) are not suited to play audio (wav) or video (avi) files efficiently, and placement of images on the page is restricted. Acrobat overcomes these limitations, and its developer, Adobe, is joining forces with Spry, Netscape and others to create much more powerful browsers.

In the short run, publishers can look forward to a vigorous evolution of Web viewers that will certainly meet all of the multimedia and text presentation needs currently envisioned. This is not a problem.

B. Copyright Management

The concern raised most frequently in our interviews focused on the potential loss of property control on the Internet. Some kinds of publishing are much more vulnerable to this risk than others. Simple essays, single images, and records from a professional reference work are easily copied, while multimedia educational materials, hyperlinked documents and large audio and video files are less so. Four copyright problems in particular were identified:

(a) Unauthorized user modifications are easy to do, but were not an issue of great concern to most of the persons we interviewed.

(b) While everyone mentioned hackers, there seem to be adequate prevention mechanisms (firewalls and encryption) as well as strong law.

(c) Unauthorized distribution by a pirate host can cause greater damage, but it is less likely to occur and easier to prosecute.

(d) Pass-along of copies by purchasers seems to be the most serious concern because it is much harder to identify and, as distinguished from unauthorized host distribution, it is very difficult to prosecute. On the other

hand the economic loss may be sufficiently small that it can be incorporated into the price.

There are three levels of response:

(a) Prevention is the most attractive way to deal with copyright management problems, and a great deal of attention has recently been paid to technologies that might block the user from making an unauthorized copy. But like the copy protection devices initially employed by the software industry, such mechanisms impose direct costs and functional disadvantages on all users in order to govern the behavior of a few. And they might be resisted by users who have to live with the complexity but get no benefit from it.

(b) Deterrence is a more common response. Publishers can design services that are harder to copy. Their files are larger than can be easily copied onto disks currently in use. They are in a format that is not easily transferred to other applications. The multimedia elements are in separate files which must also be transferred. The publisher arranges and presents the information in such a way that copying the file is more costly and complex than retrieving it again from the publisher.

(c) Detection is also essential. Whether publishers prosecute all violations or just a few, it is important that a pirated copy be recognizable as such, and that the original source of the file be identifiable. Most users will comply with the law, particularly corporations, libraries and universities. Commercial networks such as America Online, Microsoft, CompuServe and others can be persuaded not to permit any pirated copies to be distributed on their systems. But to enlist and enable this ready compliance, publishers must provide file identifiers that everyone can recognize.

In evaluating each aspect of the copyright management problem, publishers must determine which response or responses to emphasize, bearing in mind that the goal of publishing is to increase access to information, and that all forms of publishing -- including print -- include a certain level of risk.

1. Unauthorized Distribution

In this project we distinguish between unauthorized distribution which is systematically distributing the object or making it available to a group as part of an ongoing service and pass-along which we define as *sending* it to a specific individual. Publishers are concerned that without their permission, an article, an image, excerpts from a book or some other copyrighted object may be made available on a public bulletin board, Web site, university network or information retrieval system.

Example: A research library puts the journals up on an electronic database and offers patrons access and retrieval privileges, free or for a fee.

Example: A professor puts a chapter, a graphic or an article into an electronic reserve room, available to students.

Unauthorized distribution for commercial or non-commercial purposes pre-empts the sale of a copy or a license the publisher might otherwise have made without returning any revenue. As a result the publisher must put an unreasonably high price on the copies he will sell, or decline publication altogether. The copyright law permits only the copyright holder to make or authorize the making of copies.

Explorations of the new Internet medium have rekindled the debate over the fundamental social usefulness of the copyright law, as did photocopying technology and video taping before. Some argue that electronic publication without a physical object is closer to distributing an idea than an expression and therefore should not be protected as rigorously as the book, and others assert that libraries should enjoy special "expanded" fair use of information in electronic form. Most observers, however, accept the premise that in the long term the investment in formal information products must be protected if it is to continue.

There seems to be no practical way to unilaterally prevent unauthorized host distribution. Anyone determined to republish material in violation of the copyright law can, with sufficient effort, remove safeguards from a product and create a pirate version. Instead, publishers will have to focus on detecting violations through examination of the uniform file identifier, and on enforcing compliance.

We believe that publishers have several choices in dealing with this issue:

1. It is not always necessary to transfer the actual file to the user's control in order to provide viewing and printing access. The information must be transferred to the memory of the user's system in order for it to be displayed on his or her monitor, but the normal ability to "capture" or "save" the file to a disk is an optional function, and in some cases the publisher may wish to disable it.

2. System operators, including libraries, universities and corporations can be reasonably expected to detect and remove from their systems any files which have not been specifically licensed to them, and publishers can help them in this task by marking all files appropriately.

2. Unauthorized Pass-Along

Publishers are concerned that a private, academic or business purchaser might give copyrighted material to someone else, and it will be easier to do this in the future than it is now: The major thrust of operating systems like Windows and OS/2 is to allow the user greater freedom to clip information from one application and paste it into another. Images will be copied from a CD-ROM and pasted into a report, text will be copied from a downloaded article and added to a database, data will be exported to a spreadsheet, numbers will be linked to text.

Example: The subscriber to an electronic journal copies and sends an article to a non-subscriber by E-mail, or makes a copy for a colleague.

Example: A library lets a user copy portions of a CD-ROM onto a floppy disk.

Example: A business which has purchased a book or journal puts all or portions of that copyrighted material up on an *internal* corporate LAN. The company bought the book, and one might argue that the LAN is the modern equivalent of the company library.

All of these actions are violations of the copyright law. Unauthorized pass-along pre-empts another sale or licensed use and is not permitted under fair use or the First Sale doctrine. Even though it is sometimes described as a "loan", sharing information like this is clearly understood as copying under the current law, and is prohibited without a license.

Pass-along can be prevented by limiting the availability of the unencrypted file in the first place:

(a) **Downloading Restrictions:** Disallow downloading of the complete file and provide only view/print access to the harder-to-copy HTML format. Unlike the early days of file transfer on the Internet, the World Wide Web permits the publisher to provide three levels of access: First, the HTML file is delivered to the memory of the user's machine from which it can be viewed and printed. Second, current browsers permit the user to save that HTML file to disk (the "File Save" function), capturing at least a version of the information. Finally, the publisher may permit the user to download a complete and efficient file containing the information. This is not often done, in part because it significantly increases the risk of pass-along. This issue is discussed in greater detail in section III. B.

(b) **File Encryption:** Encrypt a file to the machine, key disk, reader serial number, external plug ("dongle") or password. Encrypted files are accessible only by the original purchaser.

(c) **Access Metering:** Charge according to file access.

There are also inherent deterrents to pass-along, even when the file is available:

(d) **File Size and Complexity:** Pass-along is more difficult for large, complex materials which exceed the capacity of the normal disk -- currently 1.4Mbytes. The complexity of materials has helped to minimize the copying of elementary school publications, and the size and organization of audio, video and image elements in an electronic publication would make the new products similarly difficult to copy. A standard copy prevention technique for CD-ROMs is to place all the data in a single file of several hundred million bytes so that the normal user would be deterred from making an unauthorized copy. In the HTML format, a useful deterrent to unauthorized copying is to break the file into many subsections, each separately retrieved. The user then has to save each one separately and pass along all the files together. Again, these are deterrents, not preventions, but the cumulative effect in a carefully designed system may be to make pass-along far less likely.

(e) **HTML Links:** Documents built in HTML format (Hypertext Markup Language) are especially hard to copy: remotely stored data elements and images that are important to the content of the HTML page are not retrieved when the user is not connected to the network, with the result that a complex page of text may be incomplete or less useful when it has been copied off the publisher's host onto the user's own system. When the value of the page depends on those elements being regularly updated, using a copy of a page instead of a current version leads to an even less valuable result.

There are also ways to detect unauthorized pass-along:

(f) **Uniform File Identifier:** Mark each copy of the file downloaded from the publisher's site with the identity of the person or organization to whom this copy has been sold. Incorporate this information into the copyright management information which cannot be legally removed.

(g) **File Fingerprints:** In addition to the explicit mark, modify the file to record the purchaser's identity or transaction number so that even if the explicit data is removed there will be a remaining indication of the source.

And there are proposals to track pass-along so that when it occurs, the publisher has a simple and unambiguous way to collect the appropriate fee.

(h) **Trusted Systems:** Both Xerox and EPR have proposed access and usage metering systems which travel with the content from user to user, recording activity and reporting periodically it to a clearing house that all participants agree to support.

There is no single combination of preventions, deterrents and detection systems that will work across the diversity of products and markets in which AAP members participate. Each publisher must devise a recipe appropriate to the content, the market and the risk. But several tactics are available including file identification, file segmentation and complexity, restrictions on downloading and business models based on repeated access. The information industry has revenues of \$15 billion a year providing on-line information services to university, library, corporate and individual users and through usage pricing, control over file access and clear service contracts it has been able to keep unauthorized access to a minimum.

3. Document Integrity

Distributing an article, image or copyrighted object that has been altered, taken out of context or selected in a manner contrary to the intent of the author is prohibited by the copyright law.

Example: A publisher or authorized information reseller who selects, recombines and redistributes previously published information may inadvertently omit elements that are vital to the author's argument, or may for brevity and other reasons deliberately edit or amend the document.

While it is difficult to prevent this from occurring, it is fairly easy to help the reader detect this kind of unauthorized tampering.

(a) **Product envelope:** Distribute the product in a file format such as Acrobat that cannot be modified without access to a more expensive Acrobat publisher. Modification can occur, but the reader would then be clearly aware that the product is not as originally published.

(b) **Product authenticator:** a unique indicator (date, file length, publisher) which any user can check to determine whether the version in question has been modified in any way.

4. Unauthorized Access

Publishers are concerned that a person might acquire a copy of the material without authorization, or in excess of authorization.

Example: One student uses another student's ID to gain access to electronic reserve materials.

Example: A former employee continues to use the company's site license password to access professional reference materials.

Example: A person removes copy protections, decrypts text or otherwise disables access controls and makes a bootleg copy of the information.

In addition to the copyright violations that may attend this, unauthorized access is a violation of the Electronic Communications Privacy Act (ECPA) which makes it unlawful to intercept electronic communications, to gain unauthorized access to an electronic communications service or to disclose the contents of an electronic communication.

There are several methods of prevention:

(a) **Firewalls:** These prevent unauthorized access from the Internet. This is a good but still imperfect protection.

(b) **Communications Encryption:** This prevents access to the information by monitoring the network traffic.

There are also methods for enforcing compliance:

Few fingerprints or watermarks would survive the efforts of a hacker, although there are some identification schemes which alter the information itself such as false entries on a direct mail list or irregular spacing of lines in text. The best method is apparently the combination of marking each file with the name of the purchaser, and making the removal of that mark illegal.

C. Publishing Systems

Nearly all the persons we interviewed mentioned the internal adjustments that were necessary for publishers developing network products, and several said these were an obstacle. (a) The authoring tools for creating new electronic products are still crude and difficult to use. (b) Building and maintaining an electronic information service on the network seems to require a different kind of editorial staff with a very different set of daily tasks. (c) Acquiring the rights to put material up on the network has proven to be a major problem. Moving from the traditional book package to the new electronic services model involves a shift in structure and length of the content, a shift in the complexity of the materials and a shift in frequency of publication from every year-or-so to every day.

1. Authoring Tools

CD-ROMs have been an extremely expensive undertaking for most book publishers, and at a cost of several hundred thousand dollars each they have rarely recovered their investment. Gearing up to create HTML products and keep them fresh on the network promises to be a similarly expensive effort. Tools for converting text into HTML format are still crude, and building an interface between HTML traffic and an existing databases exist but are not very well understood. Just creating a catalog of 50-100 new titles on the World Wide Web can take several weeks.

Image and audio acquisition and editing tools are readily available at low cost, but the effort to conceive and execute an efficient, attractive and easily navigated sequence of pages can take several weeks of design and prototyping.

The HTML format itself is still evolving, and most HTML designers learn their craft by analyzing and emulating each other's pages. It takes at least two weeks to reach the point where one becomes familiar with all the layout and functional options, and there is no cure for this. Designing a network service, like designing a book, is a craft that takes time to learn.

Several of those we interviewed recommended that publishers begin to build cover designs and sales copy into an electronic database. This material is a valuable part of potential Internet products. In the past the desktop publishing systems could be independent, but in the future publishers should look for ways to integrate these functions, looking forward to full electronic publishing system within the next decade.

2. Internal Editorial Functions

Several educational services are being developed for the Internet which take advantage of the network's powerful hyperlinking capability to bring real world information into the middle of a lesson. A sequence on Ancient Civilizations will contain hyperlinks to the actual holdings of a major museum; the student clicks on a reference in the lesson and finds himself in the Louvre. A module on mathematics uses as an illustration the actual statistics of yesterday's basketball game. A science sequence is linked to a Web site which is in turn maintained by an oceanographic research vessel involved in a year-long expedition among the islands of Micronesia. But unlike a book that goes to press every two years, these links are tested every day, and every day something changes.

Publishers who build ambitious NII services for school, professional and consumer markets may have to develop information maintenance capabilities as well as technical support for the users, and there is as yet no model for this activity.

3. Acquiring Electronic Rights

Several executives described the difficulty of getting the electronic publishing rights even to books they have published for years—and positions are hardening on all sides. Some publishers have taken the view that electronic publishing rights are and have always been included in the "world rights" they usually acquire. Authors and their agents, on the other hand, have argued that electronic publishing rights were never been included, and must always be negotiated separately. The mechanisms for acquiring permissions in the traditional print media are clear and tractable, but the new electronic rights have not been well defined and since no one can tell what value these rights may have, the discussions are very difficult. One executive told about a two-month effort culminating in an 18 page contract in order to acquire 6 still pictures for a prototype that would be shown for three days at a trade show. Publishers who are planning new electronic products and services should expect to encounter more difficulty in getting rights and permissions.

D. Market Uncertainties

Though far from technology, the most frequently given reason for not making more ambitious investments in Internet publishing, next to copyright concerns, was uncertainty about the market. (a) Is the installed population of Web users sufficient to support serious commercial publishing? (b) If information is available in smaller purchases—by chapter, by article, by

lesson, by record—will the market buy less or more? (c) If traditional publishers don't develop products for the Internet, will new "publishers" emerge and expand backward into print?

1. Installed Population

The best estimates are that there are now between 10 million and 15 million users. As of November, 1994, Web traffic had risen to nearly 15% of all Internet traffic, up from about 2% last year. Web traffic doubled between September and November of 1994, and based on actual traffic over the NSF backbone we estimate that about 10 million Web pages were viewed every day in the US during November 1994. At least 1 million hosts can now be reached on the Net, worldwide, of which about 65% are in the US. At some point in October the number of commercial sites (".com") became greater than the number of academic sites (".edu"). By that measurement the Internet became *primarily* a commercial marketplace.

But are these people book buyers? One scholarly publisher observed that 100% of his regular book buyers will be on the network in five years but a publisher of K-12 texts pointed out that most schoolrooms still don't even have telephones. One company told us they sell two or three books a day from their Web site after three months and no promotion. Another company that sells books in both electronic and printed form sold about 100 copies of a book over six months from their Web site, while giving the book away electronically at the same site. If growth over the last 12 months continues for another year, we estimate that at least \$5 million in book sales will be done on the Web in 1995, with \$10 to \$30 million in sales possible in 1996. It is likely to be the end of the decade, though, before any of the major markets—schools, higher education, professional reference—begin to have measurable sales of information on the network itself. Executives we interviewed estimated that electronic publishing sales in those markets might represent from 5% to 10% of their total business in the year 2000.

2. Selling Segments Instead of Whole Books

Will book buyers buy less if they can buy in smaller increments, will they spend about the same but on a broader number of books, or will they spend more because the new, more granular packaging better fits their real needs? No one knows, and we know of no research being done. Dial-A-Book, a New York startup company, now markets books from dozens of major publishers by putting the first chapter of each book up on the Web, free. The general feeling is that this will promote sales.

It is much more likely that a very different publishing idiom will emerge on the network, and that issues like this will seem old fashioned and irrelevant in a few years.

3. Competition from Emergent "Publishers"

It may be that electronic publishing on the Internet will be like audio books. In the beginning small, non-traditional publishers developed the idiom, but then the traditional publishers who had the content entered the market and captured a major share of the new business. Or it might be like paperback books which were launched by a few small publishers who then expanded backward toward hardcover publishing, growing by acquisition. When executives were asked what motivated them to undertake publication on the Internet they said they were concerned that new organizations would begin publishing electronic journals, preparing text materials, building professional reference files and drawing away authors of children's and trade books. And there seems to be real cause for concern. In one instance, a software company first offered the publisher a handsome royalty arrangement in return for building a network version of its popular sports encyclopedia, but the publisher said no. The software company then went directly to the author with an offer said to be "about a million dollars". The author said yes.

Even though the technology and the economics are still unclear, publishers believe that their traditional functions of selecting, presenting and marketing information will be as valued on the Internet as they have been in print. Their core competencies are directly relevant, and while the medium may be different, the Internet is a natural opportunity for expansion.

E. Relevance by Sector

In the table below, we have tried to summarize the major issues raised in the publisher interviews, organized by market segment. Ratings in the individual cells are certainly arguable—whether commercial grade viewers are very relevant or just relevant to electronic journals depends for example on whether the journal is about politics or medicine.

Table 2: Matrix of Issues and Related Technologies by Market Sector

	Higher							
	El-Hi	Ed	Chldrn	Trade	Prof	Journal	Schlrly	Libry
Unauthorized Distribution	●	●	○	○	●	●	○	○
Unauthorized Pass-along								
File Size and Complexity	●	●				●	●	
HTML Structure	●	●					●	
File Encryption		●			●	●	○	
File Fingerprints			●	●		●		
File Metering	●	●			●		○	○
Site Licensing	●	●			●		○	○
Permissions Clearinghouse	●	●				●		
Unauthorized Modifications								
Product Envelope					●	●	●	
Product Authenticator	●	●	○	○	●	●	●	
Network Performance Security								
Firewalls	○	●			●	○	○	
Communications Encryption				○	○		○	
Transaction Security		●		○	●	○	○	
Billing and Collection System		○	●	●	●	○	●	
Network Load Management	●	●	●	●				
ISDN	●	●			○	○		
Commercial Grade Viewers	●	●	●	●		●	●	
Authoring Tools	●	●	○	○				

○ = important ● = critical

The patterns that emerge from this analysis are these:

• In elementary and higher education markets, two conditions combine to make the problem of unauthorized distribution critical: (a) the materials are complex and expensive to create and (b) the user community is close and homogeneous. As a result, the opportunities for both unauthorized distribution and pass-along are significant. While file complexity is often a deterrent to copying, the economic impact of unauthorized usage, when it happens, can be serious.

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- The publication of scholarly journals involves a similarly significant level of risk, and monographs show a slightly lesser problem. The need to maintain product integrity and identity is uniquely significant, and the complexity of materials is similar to the educational segments.

- Professional and reference publishing are probably more advanced in its use of electronic media than any other segment; most reference books already have on-line or CD-ROM counterparts. But the risk of unauthorized access on the network may be greatest as libraries and individual users try to share the materials the same way they shared these books in the past.

- Trade and children's segments face the lowest risk at this moment. Buyers of trade and children's books are not as likely as students and scholars to have Internet access, and trade information is less likely to increase in value by being distributed this way. A secure billing system is very important, as are user-friendliness issues like network performance and powerful viewers.

F. Issues and Outlook

Publishers have quickly and enthusiastically embraced the World Wide Web as a marketing and promotion vehicle. Bookwire, the electronic directory of publishers on the Web, lists almost 200 publishers who now have home pages where anyone with Internet access can browse their catalog, read the book cover and even sample some first chapters free. Many of these are traditional houses like Addison-Wesley, MIT Press and Chemical Abstracts. Others are more obscure like Black Ice Books, the Human Dimensions Kiosk, Moon Travel Handbooks and Fringewear.

Journals are being designed to permit the reader to hyperlink from a sentence to the underlying data or across the world to a supporting article on another system. Professional systems are being designed to permit the user to click on the company name in a news story and see the financial history, click on a name and see the biography. Others are experimenting with more advanced text processing tools to find names, ideas and facts in a vast domain of knowledge—in real time.

How will all this be priced? In the current prototypes, marketing and promotion pages are free. But will publishers charge for the services in the future, and if so how? No clear answers emerge. Many feel that each of these educational, professional, scholarly and journal services will continue to offer some pages which are free—attracting an audience is a very important issue on the Web today. And there is a similarly widespread view that beyond these pages, access will be sold by many on an annual subscription basis, after which the reader can purchase additional services or individual documents.

Unfortunately very little commercial business has been attempted on the Web to date because of security and billing issues, so little experience is available.

Who then will collect the money? Again, no clear answers. Some publishers are arranging with service firms to handle credit cards - authenticate the user, check the card status, approve access, and add the charge to the customer's central bill. But when the charge to view an item or download a data set might be as small as a nickel, the cost of *handling* such an item has to be very small indeed.

Publishers have treated the emerging NII as an experiment, and while the development costs are high and the market is thin, most have concluded that the products and services are logical and attractive. No substantive technological obstacles now prevent the creation or distribution of the information products these publishers have in mind. The primary concern is how to bring copyrighted information onto an open network where ideas about access control are very different.

For publishers, information reaches its highest and best value when it has been selected, organized, edited and presented in an authoritative and efficient package. The economics, the content packaging and the structure of the industry itself are all organized around products. The market forming on the Internet, however, is much more likely to see publishing as a service, and more likely to believe that information reaches it highest and best value when the *user* gathers and organizes it to accomplish a task. In this view, the best structures are open ones that permit broad access, gathering and modification.

This is not an effort to deny the right of publishers to recover their investment—it is a debate over how best to deliver knowledge. The market is moving from one which places value on authoritative forms, to a more open structure of people exhilarated by their ability to discover and assemble information on their own.

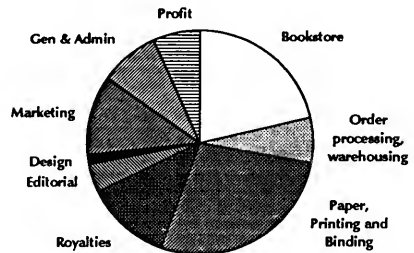
Out of these interviews comes the clear conclusion that finding the best copyright management system is not solely a technical issue. In addition to access control and security technologies, management of copyright materials requires clear guidelines for usage and various business models that fit the marketplace. The industry needs a method of unambiguously identifying copyrighted works—even chapters, lesson plans, reference records and images—and procedures that make compliance more attractive than non compliance.

II. Assessment: Electronic Books

The idea of delivering books electronically offers the inherent economic benefit of eliminating the cost of paper, printing and binding. Combined with the cost of staging the book in inventory and paying a bookstore to handle the final sale, the "book" aspects of an average book account for 55% of its cost.

Table 3: The Cost of Traditional Book Publishing

Bookstore	21%
Order processing, warehousing	6%
Paper, Printing and Binding	28%
"Book -related Costs"	55%
Royalties	12%
Editorial	4%
Design	1%
Marketing	12%
Gen & Admin	9%
Profit	7%
Content - related Costs	45%



Source: AAP Survey of operating data, as reported by 26 publishers, 1992

But the systems designed to deliver electronic books—CD-ROMs, PC Cards (PCMCIA) and on-line files—also create three difficult issues, the first and most obvious of which is how to keep the reader from making copies for others. Encryption addresses that problem, and the systems proposed rely on various schemes to prevent anyone but the purchaser from gaining a copy of the book.

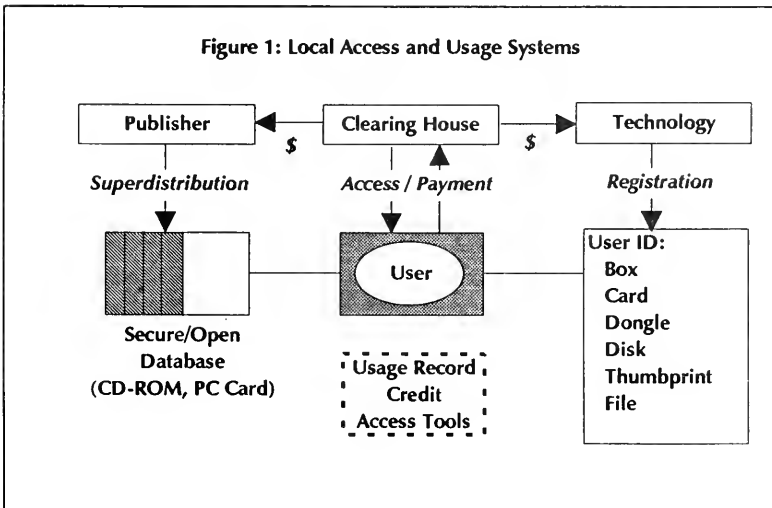
The second issue is how to charge for access and use. The value of a book to its buyer depends in part on how much the buyer reads, how many others read it, and whether some aspects of the book are referred to frequently, as in the case of a reference book. If publishers could adjust the price to reflect these varying levels of access and usage then in theory the cost to the user could track more closely the value received. The price would better reflect the value received, and the overall market might expand.

The third issue is access. The National Information Infrastructure offers great breadth of choice, but at the current speed of typical connections it takes about 100 hours to transfer the information that could otherwise be delivered on a CD-ROM that costs less than a dollar to manufacture. So the publisher's attention naturally turns to the alternative of distributing CD-ROMs or PC

Cards that contain a small *library* of information, sold on an as-used basis. The reader pays for one book, but receives descriptions and even limited browsing rights to other information on the disc that might be of interest. When one considers that the incremental manufacturing cost of the disc containing more than 100 books may be no more than the cost of a direct mail piece, and that the buyer of one book is certainly the most likely prospect for another, "superdistribution" is a very interesting new way to market and deliver books.

A. Access, Usage and Security

These are the issues addressed by seven companies who have offered usage and access-based delivery systems, and their answers converge on a general model:



The publisher sells a CD-ROM or PC Card that might include the components of a elementary school curriculum, tables and specifications for a civil engineer, patents on a particular topic, or readings in American History. The user pays a single price for limited access, but has the option of buying more information from the disc, card or host as the need arises. He is periodically prompted to call in, or in the case of InfoSafe the company calls him, and usage for the last billing period is measured. A charge is made to the reader's account and the access keys are reset for the next period.

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1. Registration

All the access and usage control systems require that the user install the necessary software and sometimes hardware and establish an account. The publisher has to set up a host system or designate a clearing house to handle the ongoing transactions. After that, the publisher provides the encrypted information and the access keys. In some cases the publisher or a designated clearing house can periodically gather usage and access reports on which the billing is based.

2. The Keys

There are several ways of providing keys to the user.

- The Internet Bookstore encrypts the whole book uniquely for the user and provides the key to be entered when the user first opens the file. The key is then stored on the user's disk in an area that cannot normally be accessed. The encrypted book can be copied but the key cannot, so only one user has access at a time even if both the book and the key are transferred to another system. If the user wants another book, he buys another disk or downloads another file. The system prevents copying, but does not meter usage or access.

- CD-MAX makes all the information on the CD-ROM initially available to a registered user and changes the key each month, billing the reader for what he actually used. If the bill isn't paid, further access is blocked. CD-MAX prevents copying and meters usage. Like long distance phone service, the system places no restrictions on access, but focuses instead on getting revenue after the fact. CD-MAX also offers prepayment options.

- SoftCOP sells the user incremental access to encrypted material already on the CD-ROM, and as the access credits are consumed, the user dials into the SoftCOP host and buys more. SoftCOP does not currently gather detailed usage or access data.

- InfoSafe downloads the information to a separate hard drive and then polls each system every day or every billing period to measure actual usage or access and to update the keys. InfoSafe can also update the data on the box in the process. The InfoSafe system prevents copying, meters usage and can regulate access as well.

- Wave allows the user to acquire encrypted files from a CD-ROM, PC Card or other source, but the files can only be accessed by a machine that has the specific WAVE decryption chip. It prevents copying, regulates access and meters actual usage.

- The Xerox Digital Property Trust model puts the keys and usage data together with the information on a PC Card, safely protected from tampering or compromise. Like CD-MAX, the Xerox proposal focuses on charging for access and usage based on a periodic review of activity. The special focus of the Xerox proposal is to make the usage and metering mechanisms independent of any user or hardware so that files can be passed along. Each registered user must dial in periodically to replenish his credit, and at that point the usage data is gathered and he is charged for access to and usage of files currently on his system.

- EPR proposes a similar system in which the usage data and access keys are located in encrypted files, this time on the user's PC. Usage reports are made and access is updated periodically whenever the user dials in to replenish his credit.

Access keys can be elaborate. They can be good for a limited time and expire at the end of a semester, or the end of the month or in an hour. They can be good for only a limited number of accesses or good for a specified number of simultaneous users. Keys can also enable different levels of usage such as browse mode in which the reader can view only portions of the file.

3. Usage Accounting

In addition to regulating access to the local database, the systems capture a record of what the user actually looked at, copied or printed, and this usage record is sent to the clearinghouse when the user seeks additional access, at the end of a billing period or whenever the user runs out of credit. The two systems with dedicated hardware take control of the reporting. In the InfoSafe system, the host automatically calls every user box periodically and gathers usage reports and billing information; the InfoSafe box has its own phone line, or can share an existing line. The Wave system prompts the user to call out every week or so, depending on the current level of credit. CD-MAX and SoftCOP systems prompt the user to initiate the call periodically; both EPR and Xerox proposals envision that the user will be prompted to call whenever the available credit level reaches zero. In all cases, the systems will on report detailed usage of the files, debit the user's account accordingly and reset the credit or permissions level for the next reporting period.

InfoSafe, CD-MAX and SoftCOP have created the head-end systems to gather and report usage, to transfer user charges to the appropriate account and to provide technical support for both the publisher and the user. EPR plans to rely on the publisher, the credit card company or another independent clearing house to handle the usage reporting and accounting

tasks. In all cases, the technology companies propose to be paid a percentage of the total business conducted over their systems.²

4. System Security

A major difference among the various proposals is the way the keys, database, usage record and decryption elements are combined. InfoSafe and Wave employ hardware decryption systems which are potentially faster. InfoSafe and Xerox put the usage records and access keys on a device (external hard drive and PC Card respectively) which is not accessible to the user. Internet Bookstore puts the decryption key on a hardware plug (a "dongle") that is difficult to modify. All of these systems rely to some extent on the hardware associated with a specific user's machine.

Table 4: Comparison of System Proposals

System	User ID	Blocks Access	Meters Usage	Host
Internet Bookstore	Dongle or Soft-Key	No	No Usage Report	Publisher
CD-MAX	File	No	User prompted to call monthly	CD-MAX
InfoSafe	External Box	Yes	Host polls user box periodically	InfoSafe
Wave	Chip or Card	Yes	User prompted to call weekly or monthly	Wave
SoftCOP	Thumbprint of machine	Yes	User calls to buy credit	SoftCOP
Xerox	PC Card	Yes	User calls to buy credit	Clearinghouse
EPR	File	Yes	User calls to buy credit	Clearinghouse

CD-MAX, SoftCOP and EPR put the usage records and access keys in locked files on the user's system, but it is unlikely that even an advanced user could compromise the security of these elements. The data can be on a CD-ROM or PC Card. SoftCOP assures additional protection by linking the keys to characteristics of a specific machine. InfoSafe stores the data on its own external unit. Each system is offering a different tradeoff between security of the data and complexity of the overall system.

² SoftLock, OverDrive and IBM have announced similar systems for metering information sales, but they were not evaluated for this report. Their addresses are included in the appendix.

The systems are summarized in Table 4. "Blocks Access" means that additional materials may be on the user's system but the user is prevented from viewing them or accessing them in any way until additional keys are provided. "Meters Usage" means that the actual viewing, printing and copying of information by that user is recorded by the security system and periodically reported to the publisher or his agent. User ID indicates where the essential identity of user is located, and therefore the difficulty associated with transferring the "user" from one specific PC to another. "Host" indicates where the central security management system resides.

B. Peer to Peer Sales

The two most recent proposals—Xerox and EPR—propose an additional level of commerce: should one user be able to copy all or portions of a database and provide them to another user? And if yes, then who should pay, and how? The Xerox proposal enables the publisher to set different levels of access and pricing that would apply when one registered user conveys information to any other registered user. The accounting will catch up when both do their monthly reconciliation. Neither the original user (who purchased the copy directly from the publisher) nor the copy recipient needs to request permission—the price and terms of transfer are incorporated into the file itself. Neither has to undertake any particular action at the time of transfer, the systems will track their action and adjust their accounts. EPR proposes a similar, but less developed system.

Though not a provider of local access and control systems, First Virtual has also expanded its vision of an E-mail payment system to include what it calls Royalty Net. The company provides sellers on the Internet with a way of identifying the buyer by PIN number, thus eliminating the need to send credit cards over the Internet. It normally uses E-mail to send a message to the buyer confirming the purchase. If usage of the information object is controlled by some local process, First Virtual proposes, the act of copying a chapter or an article might automatically create an E-mail report to the publisher or to the clearing house resulting in a charge to the copier. Alternatively, when the recipient opens the copy the process might result in both a registration and a fee. And if the publisher cannot decide whether to charge the copier or the recipient, he can charge both, permitting the copier to send a limited access version of the article (the first few pages, a one-time reading right) but requiring the recipient to pay for any further access.

Xerox, EPR and First Virtual are many months away from launching a commercial network capable of handling peer-to-peer information sales, even if the behavior of such a network had been defined, which at this point it has

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not. The puzzles are difficult to solve: if the original purchaser sells his copy to another user without the direct involvement of the publisher or his agent, the file cannot be appropriately re-marked to identify the new user. Rights and prices cannot be reconsidered and the publisher loses the opportunity to review the context and usage of the material proposed—often an issue in granting permissions. If the recipient of the copy is in turn permitted to resell or pass-along the information to yet another user, the permission trail fades into irrelevance. If the file is modified in any way, the integrity of the file is lost and the author's right to have his information presented in its original form is abrogated.

These are ideas not systems and part of the complexity a publisher faces in choosing the best access and usage control method is that they are all evolving very rapidly. Each can do or promise whatever the application requires without fear of being contradicted by experience. InfoSafe, CD-MAX and SoftCOP have actually delivered systems, but even those companies are rapidly expanding their capabilities.

C. Issues and Outlook

1. Charging for Usage

There are different views about the nature of the usage that should be permitted in most electronic sales. While some argue that printing and clipping (copying a portion but not all of the file) should be normally permitted of any information to which the user is given access, others argue that these are additional rights that may be priced separately. It is the publisher's option, and all the proposed systems permit pricing to be handled either way. But charging separately for printing and clipping would be a notable departure from the on-line services custom of permitting full usage of any file that has been downloaded—and consumers may resist it for that reason. Preventing clipping and printing will also be technically difficult to do, since the goal of most operating systems now is specifically to enable such easy file manipulation and interoperability.

2. Privacy

Any detailed report of daily usage may be viewed as a breach of privacy by the customer, and could result in market acceptance problems that offset any advantage the publisher would gain from having the data. At least one well informed article on metering carried the headline: "Is Big Brother Watching You?"

3. Tracking and Billing Systems

All of the systems proposed to date assume that a clearinghouse will exist to handle the ongoing reconciliation of usage and payment. Several of the vendors understandably propose to provide that service, but some publishers may prefer to keep the function in house. Either way, the prospect is for a steady stream of revenue throughout the life of the publication instead of a one-time spike, and there is a steady demand for service sales and accounting as well which will come as a new experience to publishers who are not accustomed to subscription sales.

Notwithstanding these concerns, publishers who wish to distribute products and services on PC Cards or CD-ROMs have several enabling technologies from which to choose. As CD-ROMs move toward the new high-density format, capacity will expand from about 100 books to at least 1,000. The capacity of PC Cards is expected to expand over the next few years to handle several hundred thousand updatable pages. Both technologies create extraordinary new opportunities to distribute large libraries of multimedia educational materials, higher education texts, professional and reference information as well as backfiles of scholarly and non-scholarly journals. The ability to regulate access to this information in a simple, cost efficient way is one of the most interesting new developments in publishing technology.

III. Assessment: World Wide Web

Of all the technologies that will enable publishers to reach a broader market over the next ten years, the World Wide Web and the NII to which it points are certainly the most important. Unlike on-line which was constructed around individual proprietary systems with a high hourly access cost, the emerging networks are interconnected, inexpensive and open in their architecture. For publishers the NII promises to reach virtually all of the book-buying community—homes, schools, libraries, businesses, research centers—in a way that removes the physical distribution economics and constraints of books as well as the system complexity of on-line publishing.

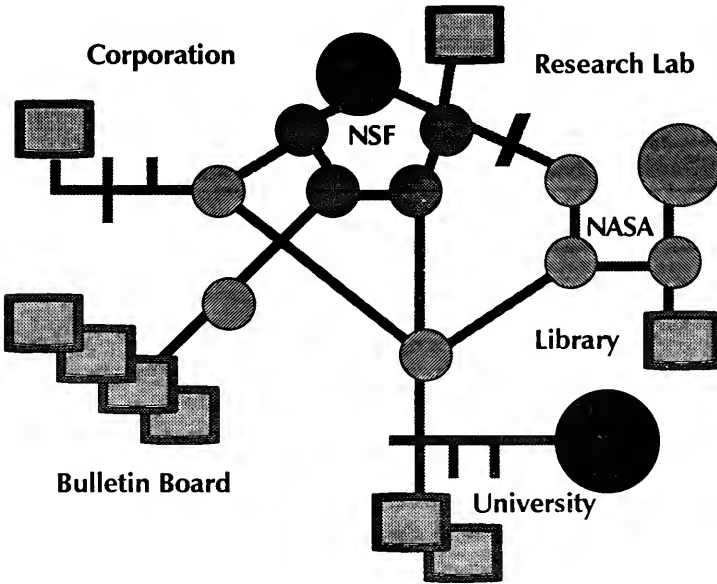
A. Evolution and Outlook for Technology

1. Background

From its origins as ARPA Net, a simple tool for exchanging files between scientific computers, the Internet reached a critical turning point in the early 1980's: operational control was transferred from the Defense Department's Advanced Research labs to the Defense Communications Agency, new and more flexible UNIX software was adopted, workstations based on Digital and Sun microcomputers became widespread and the network was transformed to a more general purpose—still within the bounds of the government and academic communities. But unlike the hierarchical computer systems that were common at that time, the Internet was a sprawling confederacy of interconnected academic, government, scientific and even commercial systems with no administrative center and only one law: "write code and build rough consensus".

The name changed as its nature changed. Without a specific policy declaration, the US government retreated from its original "Acceptable Use Policy" and began permitting commercial applications. By 1994 more than half the sites on the Internet were commercial and management of the network was gradually turned over to private telecommunications companies. The Internet was declared to be a superhighway, although until 1994 it was scarcely a place for the average driver. The command structure was the arcane language of UNIX, and in 1993 the 2 million interconnected computers enjoyed a great diversity of clever organization schemes and access protocols. To retrieve a file from a remote computer, the command was: "ftp ftp.host.net; login anonymous; cd pub/nic get information.lst". After that it was complicated.

Figure 2: The Internet



In January of 1993, a team of programmers led by Tim Berners-Lee of Geneva's European Particle Physics Laboratory (CERN) demonstrated the first Web server which sought to provide a way for all of these Internet computers to present their public files more easily.

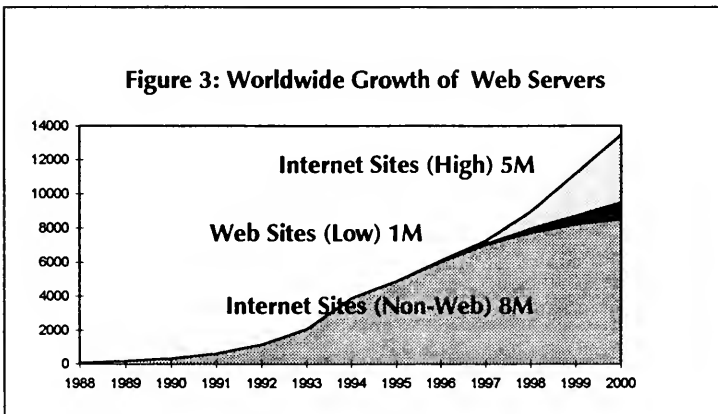
Without changing the underlying way in which the network operated, they proposed that each participating computer center adopt a new file format called HTTP (Hypertext Transfer Protocol) that everyone else could read. And they built a program that any person with a PC could use instead of the UNIX command language. They called the browser "www", and it had a number of important innovations:

1. It would be free. That would establish it as a widespread access standard against which each computer center could design its public files.

2. It was graphical. The user could click on buttons, fill in boxes, scroll the page and otherwise employ the conventions that had emerged around Windows and the Macintosh.

3. It incorporated hypertext links. The most simple and powerful of its innovations, hypertext meant bringing to life the ideas of Ted Nelson and others who had imagined and tried repeatedly to build a system where a name, a phrase, a footnote or even a picture could be linked to another document. When the user clicked on a hyperlinked term, the system would go without further instruction to any other computer on the network, anywhere in the world, and retrieve the file to which that word or phrase pointed.

4. It was multimedia. By adopting popular, publicly documented software tools and conventions, the designers placed the new browser in the mainstream of PC evolution, and as images were incorporated into files, they could be displayed. As audio was included, it could be heard. As soon as others saw the original browser, they rapidly built better ones. Within two years Marc Andreessen developed the much more powerful Mosaic browser at the National Center for Supercomputing Applications and the evolution of viewers began in earnest.



At the beginning of 1993 there were fewer than a hundred computer centers on the Internet where files were available in the new HTML format. Within 24 months there were nearly 4,000. People got interested. In October 1993 1% of the traffic on the Internet was in the new HTML format, a year later it was 14% of the traffic. Millions of copies of browsers have been given away. John Quarterman of Matrix Information and Directory Services

estimates that at the end of 1994 there were 13.5 million users around the world who could dial in and see files in HTML format.

The current best estimate of growth among Web servers is that while the Internet continues to expand, most of the sites from now on will be commercial sites using HTML protocols. From the current estimate of 5,000 such sites at the end of 1994, low growth estimates project as many as 1 million sites by 2000, and high estimates project 5 million. The assumption is that sites will be put up by every company with sales over \$5 million, every major government entity, agency and service, most public interest groups, most schools, libraries, museums and public service organizations, every magazine and most publishers. At a cost of less than \$10,000 for hardware and software, it will be an easy if not essential new form of public communication; less expensive than a direct mail brochure and easy to maintain on a monthly or even weekly basis. Our conclusion is that within a few years the World Wide Web will have become the ultimate library of public information, offering an extraordinary range of news, ideas and opportunities for participation to anyone with access to a PC. It is the most important information technology development of the decade.

2. The Communications Network

The Internet is still a confederacy; there is still no central department that monitors and manages performance. And as a result the network is sometimes slow, files are not always available and users are often frustrated.

- The backbone of the Internet can expand easily to handle the rapidly growing level of traffic, but like all growth it happens in spurts accompanied by temporary disruptions and puzzling misbehavior. There is no foreseeable limit, however, to the capacity of the Internet to handle the traffic envisioned, and it is possible, when it becomes necessary, to move traffic onto higher performance networks where availability of bandwidth is guaranteed in advance, and a minimal level of response time is assured. This does not mean that all the network problems will be solved -- as capacity expands, multimedia applications expand to exploit it. There will always be an outer edge of development where the power of the system is just able to do the tasks that have been imagined; the race doesn't stop.

- Access to the Internet is often provided by commercial companies who themselves are growing at unexpected rates, and this is compounded in corporations by the need to re-configure the Local Area Network so that users within a company are not all competing for the same external port. Often the frustrations experienced by present users are caused by restrictions that are unrelated to the Internet itself. As companies adopt better internal networks,

frame relay systems and performance assurance services this, too, will pass.

Viewed from a slightly greater distance, the communications network on which the World Wide Web will operate is in the midst of a major performance expansion as a new higher capacity ISDN standard replaces the older analog switching system around which much of the current data communications applications have been designed. ISDN will increase the speed of normal data communications from an average of 14.4 thousand bits per second (about 100,000 characters per minute) to 64 thousand bits per second, or nearly 500,000 characters per minute—the length of the average book. And beyond ISDN there are other digital communications technologies that will increase the normal user's access to the Internet.

Table 5: Typical Local Loop Transmission Rates
Bits per Second

		Data Rate	Web Pages	Color Photos	Audio Min	Video Min
1985	Old Tech	300 bps	1	1/50th	-	-
1990	Current Tech	14,400 bps	50	1	1/4	-
1995	ISDN	64,000 bps	200	4	1	1/4
2000	ISDN H	1,500,000 bps	5000	150	30	10

Normally in designing an interactive system, one should not include any process that will take more than 15 seconds—the user will look away. Under that guideline, Web systems should be designed with limited images for the next two years if the student or consumer has only a modem connection to the network. When ISDN becomes available, we can begin to design systems that show partial screen color photos every few seconds, and make regular use of compressed audio. Video, while possible at ISDN speeds, will require the user to wait for a minute to view a 15 second, full screen presentation. A 60 second partial screen video “thumbnail” can be delivered over ISDN lines in about a minute. The design goal is to turn these electronic pages nearly as quickly as one can turn the pages of a catalog, with images on each page and the opportunity to pause for an audio or video presentation.

Services designed for university and corporate markets can assume that the user has a much faster connection to the web today -- at least 56,000 bits per second and often 1,500,000 bits per second.

3. Browsers

Since all the browsers designed for the Web must read the same standard HTTP file format, the differences among them are more artistic than

functional, and for purposes of planning future publishing projects, it is more useful to consider them as examples of an evolving class of tools rather than as individual products.

Netscape, Mosaic, Spry, and Navisoft (formerly Booklink) are the major examples of current browser technology and they are functionally very similar:

- Each permits the user to type the address of the file to be retrieved. This URL (Uniform Resource Locator) contains the protocol to be used (HTTP, ftp, gopher, Telnet), the location of the computer from which the file is to be retrieved (www-mitpress), the Internet node or domain to which the computer is linked (mit.edu), the directory and subdirectory where the file is stored (mitp/recent-books/cog) and the file name (odyssey.html). So by this admittedly circuitous route, the URL goes to the MIT Press computer at the MIT Internet node, to the recent publications directory on that computer, to the subdirectory including books on cognitive science, and to the file itself that describe a new book entitled *Odyssey in Learning and Perception*. The file is retrieved and displayed on the user's screen, including the jacket illustration, brief biography of the author and price. The command to do this is a click.

- Each browser allows the user to save the address of a site or a page on a list of "bookmarks" that can be used later.

- The user can backup to the page or file that was last seen, or select a page from a list of pages that have been seen during this session. All this is an effort to reduce the number of times the user has to type the URL.

- All provide the user and the service designer with the ability to have data entry boxes, check boxes, radio buttons, drop down lists and other interactive elements that are common to the graphical interface.

- All provide for displaying of color images in several file formats, but placement of the image on the screen is severely limited. In the new version of the file format standard, HTML 3.0, this will be slightly improved, allowing the designer to create several panels on the page and move the image around a little more.

- Most browsers handle audio files and even video files, although in a primitive and experimental way. Real use of these two media is still many months away.

- All permit the user to print out the page as it was received, retaining the typography and the images in place, and to send a clean copy of the

information to another person by E-mail. The browsers are all currently slow at these functions.

4. Future Browser Functions

The direction for the HTML file format and for browsers in general is toward more flexibility, and more file complexity. Over the next two years we expect browsers to include most of the following features:

- Audio and video files will be played and presented as they are being received so a user need not wait for the whole file to arrive before the information begins. Within two or three years we expect Web browsers to be fully multi-media, although the actual use of these large audio and video files will still depend on the availability of ISDN and other wide bandwidth systems.

- Arrangement on the page will be more flexible. Because of the different display resolutions that users may have chosen, the normal HTML page will still flow into a window of undetermined size, and the screen designer cannot tell for sure how wide the screen "page" is or how long the lines will be. But within that somewhat ambiguous envelope, there will be greater latitude in placing images next to blocks of text, and positioning other graphic elements like arrows and boxes on the screen.

- It is likely that the HTML file standard will expand to include certain function calls—buttons, even toolbars which are presented along with the information to allow the user to move around more easily, to invoke certain functions and to call for menus.

- Finally it seems likely that future versions of HTML, and therefore future browsers, will permit the system to modify some but not all of the information being displayed. In the current system, the file which creates the screen must be entirely replaced if anything on the screen is to be changed. The system cannot now modify a word or change to another picture or move an arrow without retrieving an entirely new file from the remote server. In truly interactive services this is a severe limitation, easily removed once the rough consensus is formed on how to do so.

- Security will be greatly improved. A secure HTML standard (SHTTP) has already been developed and published, and we expect that within the year there will be stable browsers available that routinely encrypt all communications between the user and the remote server. Additional encryption schemes will also be available for specific applications. The current expectation is that servers will be licensed to handle specific

encryption methods, and all major commercial hosts will accept communications in the three or four most common formats. Users will always be cautioned against sending credit card numbers, names and PINs together in a single message. Alternative billing and payment systems are already being proposed but the prevailing view now is that for most applications, even those involving a purchase, the new SHTTP standard will be sufficient.

Evolution of browsers will be rapid and energetic over the next few years. The software will not always be free, and with millions of users moving to the Web, there is a great deal at stake.

B. Copy Protection and Security of HTML Files

In the course of the rapid development of the Internet over the last few years the approach to information access has shifted from file transfer to view/print, and this shift is very significant for publishers. Before the development of the World Wide Web, the standard way to access information on the Internet was for the user to retrieve the file from a remote computer and store it on a local hard drive, then view it using any normal text handling software. This minimized the traffic on the network -- the user only made one retrieval -- but it greatly increased the risk that the user would pass the file along or post it on another system for the convenience of colleagues. It was a strategy based on scarcity of bandwidth, and on the assumption that no copyright management protection would be required.

But the World Wide Web design proceeds from a very different set of assumptions: it assumes that the network is cheap, that it is always available, and that it is often more efficient for the user to leave the file on the remote host than to add it to his or her own archives. Instead of relying on a broad population of different text handling programs that might exist among users, the designers of the World Wide Web chose to build a standard viewer that could retrieve the file and display or print the information directly from memory. This permitted the user to see the information in a powerful, multi-media format and even to print it out, but it did not require the user to save the file on his or her own system, although that option was available. Whenever the user needs the information again, he accesses the host again, and this has the additional benefit of always providing the latest and most complete version. The Web has been designed on the basis of abundant and inexpensive bandwidth, and on the idea that in most applications the user just wants to see the information once or twice.

There is no indication that the designers of the World Wide Web intended this arrangement to provide any copyright protection -- but the effect is much more favorable for publishers than the older file transfer

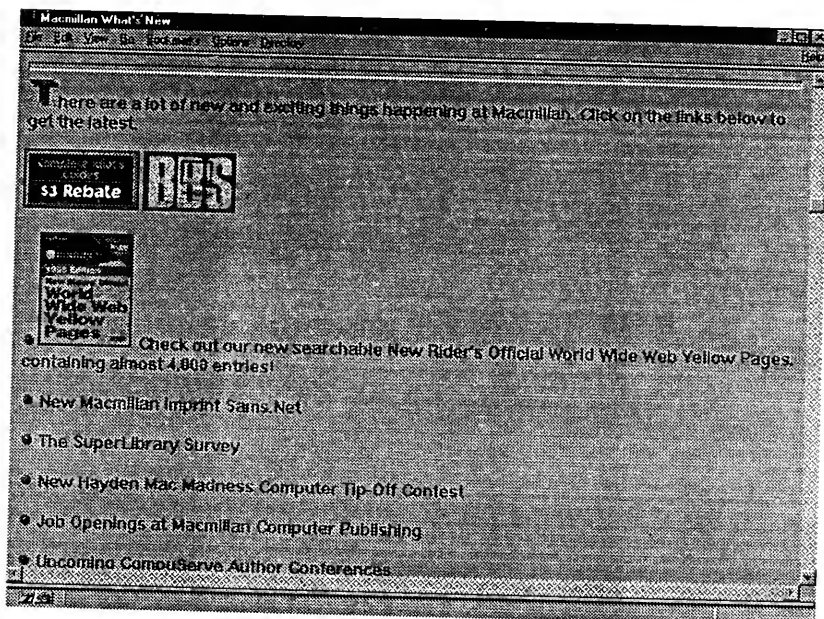
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methods, and it creates the opportunity to build an additional layer of safeguards, if publishers begin to participate actively in the technology. Saving the file to the user's system is an option on current browsers, and it can easily be made dependent on a parameter which travels with the file. Publishers should explore ways to make File Save a *publisher's* option, not just a user's option, and thereby greatly increase the deterrent cost and complexity of copying the information into a file that could be passed along. This example underlines the importance of publishers becoming more involved in the evolution of this technology -- not necessarily by inventing their own standards or mechanisms but by proactively participating in the work of many independent companies trying to build technology for this market.

Even allowing the user to save the file does not currently make the file easy to pass-along or re-use. Although the page looks organized and attractive on the screen, the HTML format is full of coding and service artifacts (Figure 4). When the file is saved to the user's PC, the typography and format are lost except when viewed by a browser. Hyperlinks and other references now interrupt the text and any images that were displayed are usually missing, though in the future browsers may capture these as well.

From the user's standpoint, the greatest obstacle in saving a file in HTML format comes from the way the publisher has structured the information. While the successive pages may have flowed easily upon each other when the article was displayed by the browser, each page is actually a separate file, and the more the publisher employs this kind of segmentation, the harder it is for the user to make a copy. To construct a useful copy of the segmented document, all the elements have to be saved in the same directory, or the user can undertake the time consuming and tedious task of piecing many sections of an article together as a single file that might be sent on to others. HTML files work when they are presented by a browser in the context of the real network where elements can be retrieved and pages can be turned. But when these files are "copied" by the user, long or complex files lose much of their usefulness and format efficiency.

Figure 4: An Attractive HTML Screen



What you get if you save it:

<HTML>

```
<TITLE>Macmillan What's New</TITLE>
<BODY>
<h1><P ALIGN=CENTER> What's New ?</P></h1>
<P ALIGN=CENTER><IMG SRC="/general/graphics/jpg/2whatnew.jpg"></P>
<H3><P ALIGN=CENTER>
<HR size=8>
<IMG SRC="/general/graphics/t.gif" ALT="T">here are a lot of new and
exciting
things happening at
Macmillan. Click on the links below to get the latest.
</p>
<a href="/general/news3/idiot2.html"></a>
<a href="/hypermail/bbsforum.html"></a>
<h3>


<A HREF="/nrr/wwwyp/"><IMG ALT="WWW Yellow Pages"
```

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SRC="/nrip/wwwyp/ypbutton.gif">
</A>
Check out our new <STRONG>searchable</STRONG> New Rider's Official
<A HREF="/nrip/wwwyp">World Wide Web Yellow Pages</A>,
containing almost 4,000 entries!
<P>


New Macmillan Imprint <a href="/samsnet">Sams.Net</a>
<p>


The SuperLibrary <a href="/survey/index.html">Survey</a>
<p>

New Hayden <A HREF="/hayden/madness">Mac Madness Computer Tip-Off
Contest</A>
<P>


<A HREF="/general/jobs/">Job Openings at Macmillan Computer
Publishing</A>
<P>


<A HREF="/general/news3/compu.html">Upcoming CompuServe Author
Conferences </a>
<p>

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Finally, the publisher has the option of permitting the user to download the information or not. In those cases where the user needs to have a coherent, standard file to re-use, to index or to incorporate into some other application, the publisher can easily permit a download of the file in an appropriate format. Normally the option is offered on the screen, and all browsers handle downloads well. In protecting these files against pass-along, the publisher has the same metering and encryption options that are available on CD-ROM or PC Card systems. Downloading can be charged for separately. The file can be encrypted as part of an overall metering scheme. The file can be marked explicitly and implicitly to include the name of the user for whom the copy was made and the rights, if any, which are conveyed. Although the metering systems discussed in section II have been imagined primarily for CD-ROMs and PC Cards, variations of those designs will work as well on networks, and publishers should take the initiative of guiding that evolution.

C. Publishing Models

More than 200 publishing companies now operate sites on the World Wide Web, and their various explorations and services point to five models:

1. Information

Most publishers already use the Web as a catalog, describing both new books and the backlist in more detail than is normally possible in print. The descriptions include cover illustrations, author biographies, abstracts and summaries of the books themselves. In some cases they go on to provide information about the author's speaking schedule and media appearances, advertising and promotion plans and other information of interest to booksellers. Finally, because of the hyperlink capability, some descriptions automatically point the reader to other books by the same author or on similar topics. These information services are free, and we expect that custom will evolve so that every book will have its own "home page".

2. Bookstores

Several publishers logically extend the catalog to include an order form, and customers are permitted to enter a credit card number and order a copy of the book. It works, and for small publishers this is a powerful new marketing alternative, particularly since the order form page can be linked to any reference to the book or its author elsewhere on the Web. For larger publishers who depend on bookstores, independent direct marketers or other selling channels, setting up one's own electronic sales outlet raises certain conflicts, but in the long run the service will be a valuable new choice for book buyers as well as a rich shopping catalog of information which might otherwise have been unavailable or unknown to them.

Small specialty bookstores are already numerous on the Web, and we expect the major national bookstores to create Web sites within the next few months, offering the books of many publishers, organized by subject, author, publisher and format. Given the potential cost savings for the electronic bookseller, this may well lead to new and deeper discount levels for specialized titles as well as popular books.

3. Electronic Books

Perhaps the most innovative use of the new technology is by new companies like Dial-A-Book and the On-line Bookstore who offer large selections on the Web—and sometimes the whole book. On-line Bookstore reports that giving an electronic version of the book away has increased sales of the print version. Dial-A-Book offers the first chapter free from books published by dozens of major companies, and the general sense from the experimental edge of this activity is that under certain circumstances the Internet offers an experience similar to browsing, and can be used—carefully—to increase sales. Pushing it one step further, Dial-A-Book

combines the electronic version, delivered in Acrobat file format, with the sale of the printed book. A customer who orders the printed book on the network gets immediate access to the electronic version for no additional charge—an advantage of great value in some subject areas where international availability of the material would otherwise be delayed by weeks.

4. Information Services

The actual sale of information on the network—the centerpiece of this commercial opportunity—has been the slowest to evolve. Very few sites have implemented the user password and accounting necessary to handle the business. The sale of articles, lesson plans, reference records and other valuable information items on the Web is still essentially untried, and while there is reason to be confident about the billing systems, the business structure and the ability to protect these copyrighted materials, publishers recognize that the changes necessary may be difficult.

5. Journals

Similarly, while great attention is being paid to the sale and distribution of journals electronically, the real experimentation has only just begun. At Johns Hopkins, MIT, University of Michigan and elsewhere projects are underway to create ongoing electronic journals as well as electronic archives of journals that will be accessible on the Web. The largest and best known of these projects is TULIP, the Elsevier effort to determine through experimentation not only the technical characteristics of a successful electronic journal distribution system, but also the organizational and economic characteristics as well. 83 journals will be made available on 18 university campuses, and users will be able to see indexes and abstracts in HTML form, or view an image of each article page.

The technology challenges of electronic journal publishing are, if not solved, at least known. But the larger and more difficult issue in putting journals on the network is economic. At a time when users are increasingly accustomed to buying information by the article, the basic economics of the journal remain dependent on subscriptions, and without that long term funding the ability to attract, evaluate and distribute scholarly information would be eliminated. Some form of ongoing subscription will be required for access to any electronic journal, and the systematic redistribution of electronic articles by libraries, universities and scholars will have to be curtailed.

As long as journal articles are available electronically on the Web, there is no advantage for the user in interlibrary sharing of electronic documents, electronic "reading rooms" or other electronic document fulfillment services,

and there are several apparent disadvantages. The publisher can provide the scholar with a larger archive, better navigation, access to more supporting information and comment as well as lower costs and better support.

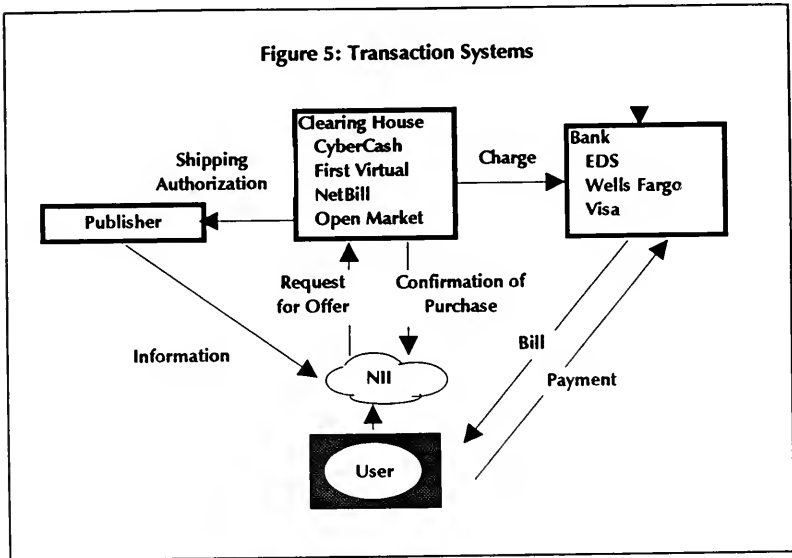
The successful publishing sites on the new NII are likely to combine all of these models. Some information is likely to be free—the NII will be a very competitive environment. Most publishers plan to offer a subscription service as well in which, for a small annual fee, the user gains access to more valuable reports, alerting services and the right to browse large libraries. Publishing services will also sell both printed books and electronic files, and in some cases there may be sponsored information made available to the reader but paid for by an advertiser or supporting organization.

D. Billing and Security

Four major systems have been proposed to facilitate the sales of information and products over the World Wide Web, and although they are in various stages of early development and deployment, all seem to have adequately addressed the needs of publishers. It is clear that by the end of 1995 it will be possible to sell information over the NII with a wide range of access and pricing options, and with sufficient security to safeguard both the buyer's interest and the publisher's.

Although there are important differences in how each company has addressed the market requirement, all share a similar model:

The user is able to browse around a catalog or description of information products available—usually on the publisher's own server. When one product seems attractive, she can request an offer to sell, and this results in a page on her screen which describes the product more specifically, indicates terms and availability and quotes a price that reflects the user's account status. If the user approves, a purchase offer is sent by the user's browser to the clearing house being used by that publisher, along with the user's credit card or account number. The clearing house authenticates the user, checks the account status, charges the appropriate credit card and sends a message to the publisher that the information has been paid for and can now be shipped.



There are important variations on this model. In the case of First Virtual, the information is shipped on approval and the buyer's account is charged only after the buyer confirms that the product has been received and is acceptable. NetBill causes the information to be shipped in *encrypted* form, and it sends the access key only after the user has confirmed that the file is complete. Open Market and CyberCash rely on traditional mechanisms for adjustments and returns that have evolved with the credit card industry.

All four systems propose a financial clearing house with which the publisher becomes affiliated. NetBill and CyberCash suggest a very simple function of managing the offer to sell and they rely on affiliated credit card banks to handle credit checking, collection, adjustments and returns. Any buyer can purchase information from any seller. Open Market will accept orders from any buyer, but can only handle merchandise from sellers who have an existing link to the Open Market system. Their strategy seems to be to bring a number of different publishers into a single, optimized electronic marketplace that uses their clearing house service. First Virtual requires that the seller have an FV account and agree to the FV way of doing business, and each buyer must have an FV account as well. It offers in return a kind of club in which purchasing is very easy among trusted partners.

1. *CyberCash*

The CyberCash system is in many ways the simplest proposal, and the one most like the present credit card transaction.

Request for Offer: Participating publishers incorporate a CyberCash "Pay" button on their screens and when the user wishes to order an item, he clicks the button. This calls upon the publisher to send a pro-forma invoice over the network, stipulating the price, terms and availability of the information.

Purchase: If the user wishes to purchase the item, he enters the credit card or debit account information, the message is encrypted and sent to CyberCash.

Payment: When the purchase order arrives, CyberCash confirms the validity of the credit account, requests authorization from the Wells Fargo bank, its partner, and then forwards the purchase order, encrypted again, to the publisher along with an indication that payment has been made. CyberCash also handles any ensuing transactions such as void, correction or return. The credit card bank will collect the money on behalf of the publisher and CyberCash will charge the publishers between 5 and 10 cents per transaction.

Safeguards: The transactions between CyberCash and the user are encrypted using both DES and RSA schemes, and high levels of security have been designed around their clearing house. The publisher billing information does not need to be on the Internet at all.

2. *NetBill*

NetBill is designed particularly to provide encrypted transactions, certified delivery and a low transaction cost. The system consists of client software which works with any standard Web browser and is invoked by the arrival of a NetBill message from any participating publisher. NetBill also provides the publisher with sales management software, the account management software and the links and procedures necessary to handle funds transfers to and from external banks and financial clearing houses.

Request for Offer: When the user browsing a publisher's service clicks on a URL which is a payment-related action, the incoming file invokes the NetBill Client software, just as an audio or image file would invoke the appropriate helper application. The software requests or otherwise determines the identity of the buyer, and this offer to purchase is encrypted and sent to the publisher's server. The publisher software determines the appropriate price—and that can be based on the product, on the terms and even on the organization's site license if one exists. This offer to sell is returned to the user and is displayed on her browser.

Purchase: If the user decides to purchase the information at the price quoted, she clicks "Yes" on the form, and the next thing he sees is the information she purchased. But the NetBill does a number of things behind the scenes. (1) The information is transferred to the user's system in encrypted form. (2) The user software acknowledges complete and error-free receipt by sending a message to the publisher's system. If there is any problem, a retransmission is automatically requested. (3) The publisher's software confirms the transaction and sends it to the NetBill clearing house where the purchaser's account is checked. At that point, if all aspects of the deal are clear and both the buyer and the seller have indicated their agreement, NetBill charges the user's account and sends a message to the publisher indicating that payment has been made and the decryption key can now be released to the buyer.

Payment: NetBill maintains accounts for both users and publishers. Periodically the user must transfer money from her credit card (Visa or MasterCard) into the NetBill account in order to fund future purchases. Where CyberCash shows each purchase on the user's credit card (with the associated increase in transaction cost), NetBill aggregates the purchases over the last few weeks, and that helps to keep NetBill's cost down. Similarly, NetBill periodically examines the publisher's account and pays out the balance. Both types of accounts can be examined by the account holder at any time.

Safeguards: The NetBill system offers protection of several kinds:

User Authentication: The user adds a secret and unique password to the purchase order, and as a result can identify any other purchases that may have been falsely attributed to him. No one else can order items on her account. Because the publisher also signs every transaction with a unique password, no one can falsify a sale.

Confirmation of Offer: Even when the offer has been requested, it must be confirmed with the user before the information is sent. The publisher system sends a message back to the user's screen, acknowledging the order and confirming the best and final price.

Confirmation of Delivery: Finally, the publisher's system ships the encrypted information without the key, and requires the user software to confirm that a file has been received without error before actually charging the user's account. Transmissions that are interrupted are not charged for, nor is the user ever billed for a partial or corrupted file.

Account Management: NetBill provides the software necessary to maintain individual customer accounts for each publisher, allowing the customer to review all bills over the Internet. NetBill emphasizes customer maintenance of accounts as a way to keep the transaction costs low—about a penny per transaction—so it is the customer who must periodically transfer credit from his credit card.

3. First Virtual

Also designed primarily to facilitate information commerce, First Virtual looks for its own growth not so much to its clearing house functions as to its role as impresario—a promoter, a presenter, a publisher. It differentiates itself by sending the critical financial messages back and forth over E-mail rather than the Internet. And it takes a much more open view of how this kind of business should be done:

Request for Offer: Any First Virtual account holder can request a product from any First Virtual-affiliated publisher, identifying himself by his FV PIN number. The publisher allows the download of information to proceed, and indicates to FV that a transaction has begun. FV sends an E-mail message to the user summarizing the price and terms and asking him to authorize payment.

Purchase: If the user says yes, his First Virtual account is debited and the publisher's account is credited. If the user declines to respond or says no for any reason FV reports "no sale" to the publisher. The user can keep the information with no further obligation, but if this behavior is repeated, the user's FV account is likely to be revoked. It is a very different approach.

According to FV's system description: "InfoCustomers, for their part, have the opportunity to download and examine information before committing to buy only that information which has value to them." The reason that the Internet information market has not developed faster, FV says, is because there has not been a good way to pay for information until now. Lee Stein, founder of First Virtual, says that if there is not a simple, friendly way to move the money, none of the rest of this technology will result in commerce.

Payment: First Virtual collects the payments from users either directly or by charging the cost to the user's credit card. It pays the publisher when and as the funds are collected, minus a processing fee, and is not responsible for information the user has chosen not to buy. The company takes the view that there is no direct cost to the publisher associated with permitting the user to see the information before the purchase, and the users in fact will find such

value in having an information credit card that they will not risk losing it through abuse of the "no-pay" option.

4. Open Market

Open Market provides the publisher with the content server as well as the transaction clearing house, tying the publisher's network host (running Open Market server software) back to Open Market's own transaction support service.

The Publisher's Server: Any publisher wishing to do business on the Web needs a computer and host software to store, present and deliver the content. It is possible to rent space on an existing commercial server, or build your own using one of several server programs. Both CERN and NCSA provide free server software for a UNIX operating system, Navisoft (AOL) has offered a new Webserver and others are expected to do the same. In this case Open Market has built one which they say has been optimized for the "store function", and they have included several tools that assist the publisher in creating Web pages and transaction functions (WebMaster's Workbench). The server software (Secure Webserver) is sold with security for \$4,995, and for another \$2,495 the publisher can buy the software linking its server to Open Market's clearing house (The Integrated Commerce Service). Features of the service include activity reports on browsing and store operations as well as the ability to create a page specific to each user, highlighting items of special interest.

Request for Offer: Any Web user with any browser can call the publisher's Web site and see information for sale. At that point the user can request an offer to sell (price, terms, availability) by clicking on a link. If the user wishes to make a purchase, the transaction is then shifted from the publisher's server to the OpenMarket clearing house (The Payment Server). The clearing house software authenticates the user and validates the form of payment (credit card, existing account, tokens). Because OpenMarket will serve many publishers from its clearing house, it permits the user to select many different purchases into an electronic "shopping cart" and then complete the transaction with a single charge.

Purchase: When the identity of the buyer, the nature of the purchase and the form of payment have been established, the user completes the transaction and receives a "ticket" indicating that his account has been charged for the product. At the same time, the Open Market clearing house sends a message to the publisher that payment has been made, and the information can be released.

Payment: The user pays his credit card or account, and the credit card bank pays the publisher directly. Open Market is paid by each publisher on a transaction basis for providing the clearing house functions. The Open Market clearing house also provides the user with on-line access to his account information.

Table 6: Comparison of Billing Systems

System	Construct Offer	Check Account	Validate Purchase	Collect Payments
CyberCash	Publisher	CyberCash	CyberCash	Bank
NetBill	Publisher	Publisher	NetBill	Bank
Open Market	Open Mrkt	Open Mrkt	Open Mrkt	Bank
First Virtual	First Virtual	First Virtual	First Virtual	Bank

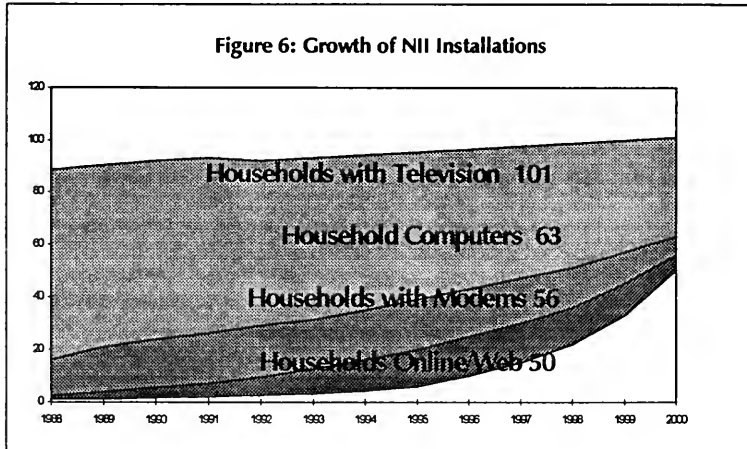
E. Evolution of the Marketplace

At this point in the early explosive phase of the Web, there are great differences in estimates of how many users already have access, let alone how many will have access in the future. Some Web servers have as many as 800,000 "hits" a day, and that seems to indicate an unimaginably high number of users. But a "hit" is counted every time a page retrieves another file, so a page with three pictures is counted as four "hits" and a user who follows several hyperlinks to get at the information he wants may seem, with this counting system, to be dozens of users. Jack Rickart, editor of *Boardwatch Magazine* and the most sober and systematic of the Web watchers, concludes that there are between 3 and 7 million users of the Web, and John Quarterman of Matrix says the number might be as high as 13.5 million.

1. Growth of the NII

For planning purposes, we propose to make three assumptions: (1) the growth of personal computers in the home will continue at its present rate through the balance of the decade. (2) The percentage of PC's sold with modems will continue to rise, and in fact modems might be incorporated into the standard configuration of family PC's within a few years. (3) The additional software and registration necessary for a household to access the Web will be part of the new Windows 95 software, and is already part of IBM's competing OS/2. Any household buying either of these two operating systems will receive the software necessary, as well as a variety of free and introductory offers to bring them onto one of many services.

When these three assumptions are made together, we are led to conclude that the number of households who can access the Web will grow from about 10 million in 1995 to about 50 million in 2000. Even modest applications of these assumptions lead to a population of 30 million households who will be able to access the Web in a few years.



It is much more difficult to know how much usage these households will make of the services available. The current level of Web traffic appears to be about 3,000 bytes per day—about one screen per day—for each user with access. But actual traffic experienced by any single publisher will depend on the value of the information, the structure of the service, and the reputation of that site for being timely, relevant and well organized.

2. Optimized Networks

In the face of this enormous expansion and variety of available information services, the user is likely to get confused. The quality of information will be uneven and unpredictable, the many different schemes for organizing and selling information are likely to cause complexity and frustration. Many average services will prevail because their goals are not always financial, and the few attractive and high value Web sites will continue to be overrun, as they are now.

Microsoft, America On-line, CompuServe, Prodigy and AT&T have begun to build optimized services within the Web framework, and MCI, IBM

and others are expected to follow. While the individual strategies are different, their overall goal is the same - to create an island of order and consistent quality in what will surely be a noisy, exuberant and often chaotic space. Each company will offer access to selected information services, with usage gathered on a single bill. Each company will provide uniform access and navigation across a wide range of sources, a well engineered site that responds promptly at all levels of traffic, and a variety of interesting reasons for coming back on a regular basis. Ted Leonsis, president of America On-line, calls it a "pub" or a "hot spot" and says it will always have something interesting going on. Bill Gates at Microsoft calls it a civilized store in the Wild Wild West. Both are focusing on the household user trying to do work at home, or children doing homework, and both are hoping to provide answers to the user's information needs within their group of affiliated services.

The Microsoft initiative may be the most aggressive and far reaching. The company proposes to select a group of major information service providers for the first phase of the Microsoft Network, now scheduled for activation in the fall. They will provide each publisher with authoring tools (the "Blackbird" developer's kit), space on the Microsoft system host, billing and promotion. In return, the company currently proposes to take about 20% of the publisher's collected revenue—a reasonable share considering that other on-line services have normally taken 50 to 70%, and that publishers who set up their own service can expect to spend more.

Once the network is established, Microsoft will expand around four target markets: homework, small office/home office applications, computer support and hobbyist groups. The second wave of growth will bring hundreds of additional publishers onto the Microsoft system, and the last phase of growth is expected to link the system out to thousands of independent services running on their own servers. While America On-line is trying to keep the monthly charge at \$10 with no extra charges, Microsoft plans to start the service at \$5 per month and "drive it to zero" within a few years, relying for its reward on a portion of the publishers' billings.

AT&T's agenda is greatly influenced by their desire to sell ISDN access to companies, and they view the information services business as, if not a loss-leader, at least a reason to buy communications. While Microsoft and America On-line plan for services that can be delivered over normal dial-up modems (limited multimedia materials), AT&T can be expected to focus its Interchange business on the upper end of the market, selling more complex multimedia services of interest to global corporations. It is not clear yet how CompuServe and Prodigy, the pioneers of this industry, plan to shape their services, but in the coming competition over new Web customers, each company will have to find a portion of the market which they serve uniquely well.

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IV. Recommendations

A. Define the Product: Uniform File Identifier

The argument has been made that in the growth of agriculture the fence was as important as the plow—the ability to unambiguously define property is central to any commercial system. If the publishing industry is to establish a reasonable copyright management system for the new electronic media, it must move as swiftly as possible toward a standard identification method. The necessity for doing this has been recognized in each of the recent studies of intellectual property and the electronic age over the last year, and several proposals have been made with regard to what the UFI might include. Together they point to the following elements:

Copyright and Permissions

- Copyright symbol, owner, date of copyright
- Name of person or entity for whom this copy has been made
- Date/Time copy made
- Limitations on use (print, copy, display, store, simultaneous users)
- File Save/File Print enabled/not enabled
- Other permissions available, and associated pricing
- Contact for permissions

Document Identification:

- Publisher
- Author
- Title of primary copyrighted work (Book, Service)
- Title of this section (Chapter, Lesson, Section)
- Title/identification of object (Page(s), image, table, record)

File Description

- Type of file (ASCII, Acrobat, JPEG)
- Length of object in bytes
- Authenticity mark (length, date)
- Unencrypted abstract or description (optional)
- Unencrypted keywords, table of contents (optional)

The Abstract Syntax Notation 1 (ASN.1) is an existing ISO/CCITT standard syntax developed for the computer industry which has been adopted by other information industries as well, and for which there are established software tools and utilities. Although this study did not seek to evaluate the syntax choices, the general consensus among those interviewed was that ASN.1 was the most promising alternative. A marker created in this

syntax and placed in unencrypted form at the beginning or end of each electronic file would permit users as well as software to interrogate the contents, ownership and permissions situation of that object without actually having to gain access to its content. If the Lehman Report proposals are approved, it would become illegal to alter or remove such "copyright management information".

Users wishing to acquire additional permissions would know directly from the file what is available, for how much and from whom. Publishers who wished to do so could mark each copy of the file downloaded or distributed with the identity of the person, school or company for whom this file was made, as well as confirmation of its authenticity. Violations of the copyright law would be detectable: A file legally available on a host would contain the name of that host while a file with an altered or missing tag indicts its holder. The same UFI can serve as the basic element in any access control or usage accounting system.

This is an urgent matter. AAP should immediately undertake to define the information, select the syntax and circulate a UFI description for comment within the next few months, setting as its goal the promulgation of a guideline in this area before the end of the year.

B. Lead the Evolution

There are a number of technology developments that are going forward without sufficient information about how publishing really works, what customers really want or what the economics really are, and individual publishers must shortly decide whether to take an active role in this evolution or accept the designs of others; AAP can provide a useful forum for this discussion.

Even the most thoughtful designers of metering systems are responding to the needs articulated by a few customers—or none at all. Billing systems proposals are being designed around popular concepts of catalogs and consumers and might—to choose a simple example—neglect to include the school's purchase order field in an ordering scheme. The HTML format, to choose a second example, has no element specifically for copyright information that could be queried by external software.

It is important for the publishing industry to lead—to understand, to direct and to support—the evolution of electronic publishing technologies. This doesn't mean that an AAP committee must assume the mantle of design in every case, but it means that it must beckon, point, explain, cajole, compromise, get to the table where the technology choices are being made,

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know what will work for publishers and their customers and argue for it at every turn.

Specifically we recommend that the AAP undertake four conferences over the next 12 months to look at electronic publishing evolution in journals, K-12, higher education and reference works for libraries. Each conference should include leading publishers, customers and representatives of relevant technology. Each conference should have as its goal a vision of how electronic publishing might proceed in that area. What content is particularly suited for this medium, what delivery mechanisms work, what business models—including copyright issues—may be most attractive?

The near term opportunities are well understood by individual publishing companies and will be pursued by them independently. But the Association can usefully create a forum by which the industry looks beyond the next year or two, seeking out appropriate technologies, identifying new business models, and exploring the content and packaging needs of its market. At the conclusion of each conference, a small report would be produced and distributed widely describing what issues were raised and what alternatives were discussed. It is our view that with a modest effort the Association can have a powerful influence in shaping the technologies that will be available to its members in the future.

C. Create a Forum and Test Site on the Web

We recommend that AAP develop a program to systematically monitor and disseminate information about emerging technology, copyright issues and new publishing models, and that the principal method of distributing that information be the new AAP Web site. The New Technology Monitor would have several specific goals:

- Produce brief reports monthly or more often, as required, covering any significant developments in metering, billing, file format or copyright management technologies, including standards, product announcements, conferences and reports.
- Compile and maintain a library of selected documents, articles, specifications and other information that would be useful and relevant to publishers on this topic. The library will also serve as a prototype for commercial publishing enterprises, and may incorporate experimental file formats, copyright management information and multimedia materials.
- Compile and maintain product specifications and information on new publishing technologies and services available to the industry from various vendors. This is essentially an ongoing file of tools, software and services

which might also be used as a prototype or test bed for publishing models.

- From time to time test alternative billing, encryption, navigation and copyright management systems that can be used by readers. The decision to test a system would not imply approval of that system by the Association, but results of such experiments would be reported.

The overall goal of the New Technology Monitor is two-fold: to gather and disseminate timely information on the emerging technologies, and to do it in a way that itself becomes a testing site for various alternatives. No recommendation or certification would be implied on behalf of AAP for any technology or process that might tested, and choosing the best alternatives is specifically not the purpose of the project.

The organization, staffing and management of this activity would be under the direction of the Enabling Technologies Committee, and should take advantage of existing commercial news and monitoring services where possible. The project would have a three-year life, after which we recommend that it be halted or converted to an Association information service with a more a general scope. We recommend that the committee consider various ways of accomplishing this task, with a goal of launching the New Technology Monitor within the next three months.

Persons Interviewed:

We are deeply grateful to the following persons for agreeing to participate in this research:

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**Ginn Press
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Mr. Peter Urbach
 VP Electronic Publishing
Reed Publishing USA

Mr. Michael Leonard
 Associate Director
The MIT Press

Ms. Carol Risher
 VP Copyright and New Technology
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Christopher Burns is President of Christopher Burns, Inc., a research and consulting company specializing in the information and media industries. Mr. Burns has designed a number of large scale information systems including UPI's world wide computer and communications network, the New York Times electronic newsroom, United Nations Headquarters parliamentary documentation system, the International Atomic Energy Agency document control system as well as several on-line, CD-ROM and data broadcasting systems for Reuters, Bureau of National Affairs, AT&T, and Knight-Ridder/Dialog. He recently designed a major new information service for the World Wide Web, and an advanced video news service for one of the national television networks.

He has served as Chairman of the Copyright Committee for the Information Industry Association as well as Director of IIA and the Association of Information Managers, Chairman of the OTA Advisory Committee on Communications in the Information Age and a member of the original Advisory Committee which created the Copyright Clearance Center. Prior to starting his own practice in 1983, Mr. Burns was Senior Vice President of the *Minneapolis Star and Tribune*, VP Planning for the Washington Post Company and a consultant on the staff of Arthur D. Little, Inc.

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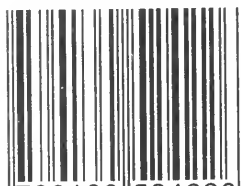
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